



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

JANUARY 1998, Vol. 5, No. 1

Hutchison development will go to public hearing

At the Saanich Municipal Council meeting on Monday, Dec. 15, 1997, council approved sending the Hutchison family's proposal to rezone the land to public hearing. The 5.2 ha parcel, already zoned A-1 (agricultural) and RS-8 (single family dwelling), will become a mix of RS-6 (single family dwelling), RS-CH1 (single family dwelling Christmas Hill), RT-3 (attached housing) and P-4 (natural park).

Ross Meek, grandson of the original owner of the property, the late well-known journalist Bruce Hutchison, spoke on behalf of the family. Prior to

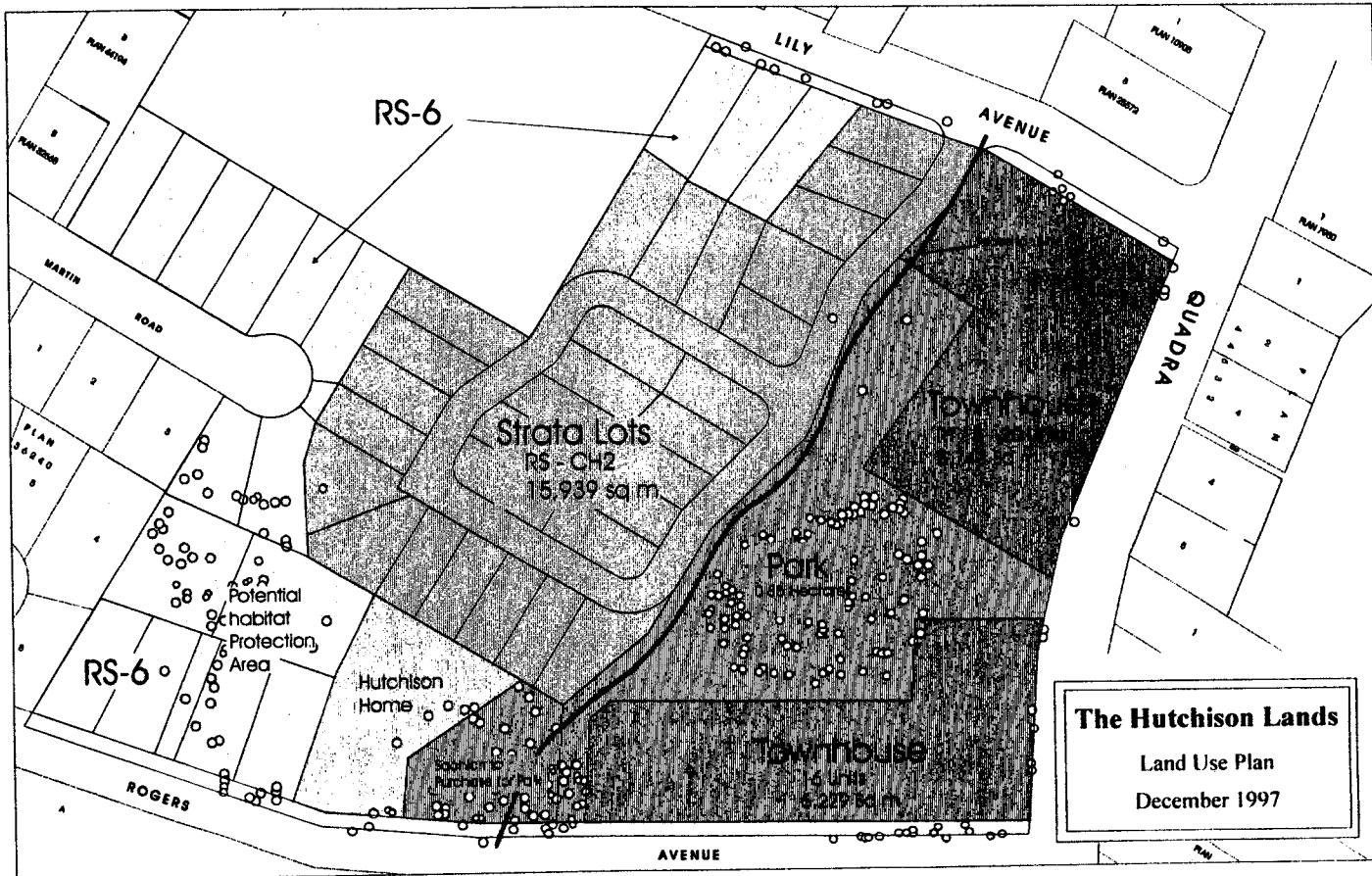
the council meeting he had already met on site with GOMPS directors and at a Board meeting. He had also met with the North Quadra Land Use Protection Association and the neighbourhood to explain the proposal, which had been revised to address some concerns.

There are 387 Garry oaks on the property growing mainly in two areas. The east knoll, largest of four prominent rocky knolls on the property, will be mostly protected by the P-4N designation. It has been rated as an area of "high" priority for protection in the Christmas Hill Slopes Action Plan.

However, the western knoll rated "Medium" in the action plan, is an area of equal importance, and contains significant understory and meadow areas, not just oaks. It may or may not be protected depending on whether six large lots in the southwest corner of the site remain undeveloped.

The family has made a commitment to hold these lots for five years, during which time Saanich or interested community groups such as GOMPS could buy the lots at market value of the day with one third of the value donated

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back.

Saanich has already indicated it will purchase two of these lots which adjoin the Hutchison homestead and proposed park. Perhaps Saanich could buy the four remaining lots at one lot per year to bring the protected area up to 28.5 per cent of the property.

According to Ross Meek, the area designated P-4N comprises 13.7 per cent of the property; the addition of the

two Saanich lots to that will increase it to 17 per cent.

The proposal also includes a greenways link to Rogers Farm and hence the Nature Sanctuary, once the Rogers Farm greenways link is finalized.

GOMPS Director Sharron Waite spoke on our behalf at council and restricted her comments to Garry oak habitat and not to zoning/traffic/density/design issues which concerned other speakers.

She commended the family's efforts to preserve Garry oaks. She also suggested that the developer be required to remove the Himalayan blackberries from the eastern knoll, which is heavily overrun with them.

The public hearing will likely be held towards the end of March. GOMPS members could help by attending the public hearing or writing council to request that Saanich acquire the other four lots over time.

— Katie Stewart

Pearkes Arena expansion okayed

At the January 5, 1998 Saanich council meeting, councillors agreed to the \$3.8 expansion of Pearkes Arena. The arena will be "twinned", with a new rink built next door to the existing rink, and the latter's facilities upgraded.

Unfortunately, the design chosen impacts on a remnant urban forest of Garry oaks, Grand firs and understorey plants. While a disturbed habitat containing ubiquitous Himalayan blackberry and English ivy, it still has significant habitat and parkland value.

Many of the trees are immature, i.e. not of a size that would be protected under Saanich's Tree Protection Bylaw and as we have noted during our inventory of Garry oaks within the urban core, of special significance because of the lack of oak regeneration overall.

In the Terran Environmental Services Environmental and Social Review report of March 1997, consultant Adriane Pollard noted: "The majority of the land between current development and the Colquitz River is mature Grand fir forest with the occasional Douglas fir or Big-leaf maple also present in the canopy.

"Understorey species include a variety of native and invasive species. Along the edge of this fir forest is a narrow band of Grand fir-Garry oak that represents Vegetation Community

#1. The combination of Grand fir and Garry oak is an uncommon ecosystem type, and as an edge community, it provides high bio-diversity and habitat values.

"The presence of Garry oaks in any ecosystem is notable because this species has a limited range and is part of a rare ecosystem in Canada. The canopy in Community #1 is diverse with dominant, co-dominant and suppressed trees, and a fairly dense understorey with ocean spray and snowberry or matted with ivy. Native species include sword fern, bracken fern, both tall and dull Oregon-grape, baldhip rose, and trailing blackberry.

"Community #1 is on a slightly sloping grade that has been disturbed by a wood-chip trail, lesser paths and invasive species such as various ivys, holly, wall lettuce, bull thistle and daphne. Community #1 is considered to be a valued vegetation community because it is representative of a rare ecosystem type."

Potential Impact: Removal of Grand Fir and Garry oak trees (Community #1)

"The building envelope for the Olympic-sized arena would require the removal of eight mature Garry oak trees and four mature firs. Two other oaks would be severely impacted by soil compression or soil removal within

their drip lines. Approximately 10 immature firs and several native shrubs would also be removed by construction at the arena site. The access road running along the north of the proposed arena would remove or mortally damage an additional 16 firs.

"Approximately 17 trees would also be lost to the proposed parking lot where Community #1 continues along the edge of the fill. This includes five Garry oak, 12 Grand fir and a pocket of dense regeneration (mainly Grand fir).

"Tree clearing required for the Olympic-sized arena and associated parking lot would seriously affect Community #1 and impacts are considered to be significant and unmitigable. In addition, this habitat is a forest margin eco-tone that has not yet been studied and is also known to occur in Francis and Freeman King parks, according to Adolf Ceska (ecologist at the Conservation Data Centre).

Mitigation strategies:

"A substantial alteration of the project design is considered to be the only feasible response to the significant unmitigable impacts associated with the proposed Olympic-sized arena and 218-car parking lot.

"Saanich Parks and Recreation has agreed with this assessment and has proposed an alternative project that

includes a smaller NHL-sized arena and substantially reduced rear parking lot. This change in the project design was supported by Saanich council which passed a resolution on the Pearkes Arena expansion on 04 November 1996.

“Constructing a smaller arena would still involve the destruction of 12 mature trees in Community #1 (eight mature oak and four mature firs) but Garry oak and other native species could be planted in other suitable portions of Community #1 as partial compensation for this loss.

“Garry oaks planted as compensation must be sufficiently mature to outgrow other invasive or shrub species. It may be appropriate to involve the **Garry Oak Society [sic]** in the planning and implementation of compensation measures.

Residual Impact Rating:

“Impacts on Community #1 could be reduced to a less than significant level by developing an NHL-sized arena and by restricting parking lot development to areas containing Community #2 (heavily disturbed fill area covered with grasses and invasive species).

Commitment to Mitigation Plant Life

“Construction activities in forested areas will be directed by a Tree Protection Plan (Appendix F) and monitored by an approved arborist during site clearing and excavation.

“A tree and habitat replacement plan to compensate for losses in the arena and parking lot building envelopes will be prepared in consultation with the **Garry Oak Society**.

“Saanich Council has agreed that at least two species of the species will be planted for every tree removed, but this broad commitment may be altered based on input from the **Garry Oak Society** (e.g., considerable more seedlings may be planted if this action is recommended).

“Natural tree regeneration will be al-

lowed to occur in affected areas not subject to replanting.

“Exposed soils will be covered during construction and re-vegetated with native shrubs after construction is complete.”

GOMPS concerns:

I wrote a letter to Alan Hopper on May 28, 1997:

“At our the board meeting of our society on May 22, we discussed the Pearkes Arena ESR.

“We are, of course, very concerned about any potential loss of Garry oaks in what the consultant terms a “uncommon ecosystem type” (Garry oak-Grand fir) in an already endangered Garry oak ecosystem. Despite the reduction in size of the arena from Olympic size to NHL size, this area will still be impacted and habitat lost.

“The consultant, Terran Environmental Services, suggests that a possible mitigation might be the planting of good-sized Garry oaks, which would out-compete invasive species. In the report it was suggested — without consulting us first — that a “a tree and habitat replacement plan to compensate for losses in the arena and parking lot building envelopes will be prepared in consultation with the Garry Oak Society” (presumably GOMPS).

While we certainly have an opinion on the suitability of this site regarding the possible survival rate of Garry oaks which might be planted, we are not scientists or experts and think the municipality requires the services of experts.

“We have not had any long term studies done on Garry oaks which have been distributed through our society and subsequently planted, although this is something we hope to do and have sent letters of inquiry to both UVic and Camosun environmental departments regarding this possibility.

“However, it is our observation that unless Garry oaks are planted in an area which is difficult to access (such as the

McKenzie/Pat Bay Highway interchange), the oaks will not likely have a high rate of survival. Garry oaks planted, for example, at the Cedar Hill Recreation Centre in the fall of 1995, were broken off and vandalized. We wonder what the survival rate might be at the Pearkes Arena, in what will be a highly trafficked area.

“As to finding Garry oaks of sufficient size, as recommended in the ESR, those we grow through the Pacific Forestry Centre would not be tall enough, nor would those sold at Thimble Farms and C.E. Jones, both local native plant growers and suppliers.

“Our directors wonder what the possibility might be of a) building the arena in the soon-to-be-vacated Eaton’s premises (such indoor arenas in malls do exist elsewhere), where there is sufficient parking or b) since the idea seems to be to add on to an existing facility, to build the arena where the tennis courts used to be, rather than rebuilding the courts. Perhaps they could be relocated elsewhere. The trade-off would be less environmental damage.”

Ken Kreiger’s report to council

On December 5, 1997, Ken Kreiger, Saanich’s Manager of Recreation Services submitted his report to council. The access/fire lane shown in the ESR had now become a cul-de-sac, cutting much more into the forested area.

Although construction of both the fire lane and the cul-de-sac entail removing similar amounts of Garry oaks (eight-ten), more habitat trees and mature conifers will be lost with the cul-de-sac as well as a new forest edge being created, which will in time become invaded with broom etc.

Total loss of trees for the construction will be 18 Garry oaks and 67 conifers. The Parks and Recreation Department promises to replant the native trees lost seedlings on a two-to-one basis. Adriane Pollard suggested in the

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Endangered species protection: National initiatives

This article is reprinted with permission from its author, Bill Harper, RPBio, Osiris Wildlife Consulting, Victoria.

It originally appeared in the Fall/Winter 1997 newsletter of the NPSBC Native Plant Society of B.C.

According to the notes accompanying the article, Bill Harper was until "recently the senior provincial authority on endangered species and the British Columbia government representative on COSEWIC. He is now the head of an environmental consulting business that specializes in ecosystem analysis and integrated solutions to strategic wildlife management issues."

Part 1 — The Committee on Endangered Species Protection

National efforts to protect endangered species in Canada are part of a larger global effort to conserve biodiversity and use biological resources in a sustainable manner.

Canada's obligations under the United Nations Convention on Biological Diversity (1992) are outlined in the Canadian Biodiversity Strategy (1994), which provides a framework for government action at all levels.

One of the key articles of this international convention addresses the need to identify and monitor those components of biodiversity most in need of conservation attention.

Beginning in 1978, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has determined the national status of wild species, subspecies, and separate populations of native plants, fish, reptiles, birds and mammals. In 1994 its mandate was expanded to include mollusk and lepidoptera species of invertebrates.

COSEWIC membership consists of one representative from each provincial and territorial wildlife agency, four federal agencies (Canadian Wildlife Service, National Museums of Canada,

Department of Fisheries and Oceans, and Canadian Parks Service), and three nationally based private conservation organizations (Canadian Nature Federation, Canadian Wildlife Federation, and World Wildlife Fund).

COSEWIC determination of risk status is usually the first step in a process of conservation and recovery actions ultimately designed to prevent any species from becoming extirpated or extinct as a result of human activities.

The scientific foundation for COSEWIC designations are peer reviewed species status reports. Using these status reports, COSEWIC designates species into one of seven categories of risk, as follows:

Extinct — A species that no longer exists.

Extirpated — A species no longer existing in the wild in Canada, but occurring elsewhere.

Endangered — A species facing imminent extirpation or extinction.

Threatened — A species likely to become endangered if limiting factors are not reversed.

Vulnerable — A species of special concern because of characteristics that make it particularly sensitive to human activities or natural events.

Not at Risk — A species that has been evaluated and found to be not at risk.

Indeterminate — A species for which there is insufficient scientific information to support status designation.

Preparation of COSEWIC status reports is an ongoing task, and may take as long as two years depending on volume of information available and the extent of peer review comments.

The Annual General Meeting of COSEWIC is held in April of each year, at which time candidate species are designated based on the status reports submitted.

In 1996 a record number of 44 species status reports were considered, followed by a more manageable 35 reports in 1997. Of the 35 reports evaluated in 1997, 18 were on species whose range includes British Columbia.

As of April 1997, COSEWIC has designated 291 Canadian species as being at some level of risk of extinction. Most of these (132) fall into the lowest risk category, vulnerable. A total of 68 species are designated as threatened, and a further 65 meet the criteria considered to be endangered.

Twenty-one species have been lost from Canada, 12 extirpated and nine extinct.

Plants (which now include lichen species) account for 105 of the 291 species considered at risk. Of the 105 plant species, 35 are vulnerable, 38 are threatened, 30 are endangered and two are extirpated from Canada.

British Columbia plant species include six plants designated by COSEWIC as endangered and seven as threatened. (See below.)

Besides evaluating status reports, COSEWIC is also active in developing "tools" for use in making status determinations. One example is a set of guidelines for designation at the population level, including a map of eight "National Ecological Areas" in Canada.

Another example is the development of biological criteria as an aid for: 1) determining the eligibility of Canadian species for status assessment, 2) assigning priority for assessment to those species, and 3) evaluating their rate of extinction.

For those species designated at the highest risk of extinction (extirpated, endangered or threatened), the next step is the preparation of a recovery plan.

In 1988, the Committee for the Re-

covery of Endangered Wildlife (RENEW) was established to initiate and oversee the development of recovery programs for species at risk internationally. At present RENEW's mandate focuses primarily on recovery of terrestrial vertebrates. There have been no national recovery teams established for plant species at risk.

The most recent national initiative affecting endangered species conservation is the National Accord on the Protection of Species at Risk in Canada, a federal/provincial effort to harmonize endangered species legislation across the country.

In October, 1996, all Wildlife Ministries in Canada issued a press release confirming they had reached an agreement-in-principle on the National Accord.

Bill C-65, the Canada Endangered Species Protection Act, was supposed to be a key component to the National Accord. Although it was introduced in the House of Commons in October, 1996, Bill C-65 only made it through Committee Stage, before dying on the order table with the calling of the last federal election.

Further information about COSEWIC can be found with a visit to their Web Page. Just type "COSEWIC" into the search area of any of the major search engines.

Part two of this series will outline provincial legislation that applies to endangered species in British Columbia.

British Columbia plant species designated by COSEWIC as endangered or threatened

Endangered B.C. plants

- 1) deltoid balsamroot (*Balsamorhiza deltoidea*);
- 2) prairie lupine (*Lupinus lepidus* var. *lepidus*);
- 3) seaside birds-foot lotus (*Lotus formosissimus*);

- 4) water-plantain buttercup (*Ranunculus alsinaefolius* var. *alsinaefolius*).

Remaining small populations of all four of these species are threatened by competition from exotic species and habitat destruction within Garry oak ecosystems on southeastern Vancouver Island.

- 5) seaside centipede lichen (*Heterodermia sitchensis*) — very restricted distribution on narrow coastal strip of western Vancouver Island;

6) southern maidenhair fern (*Adiantum capillus-veneris*) — highly restricted population associated with a unique hotspring-modified habitat in the southern Rocky Mountains.

Threatened B.C. plants

- 1) golden paintbrush (*Castilleja levisecta*);
- 2) white-top aster (*Aster curtus*);
- 3) yellow montane violet (*Viola praemorsa* var. *praemorsa*).

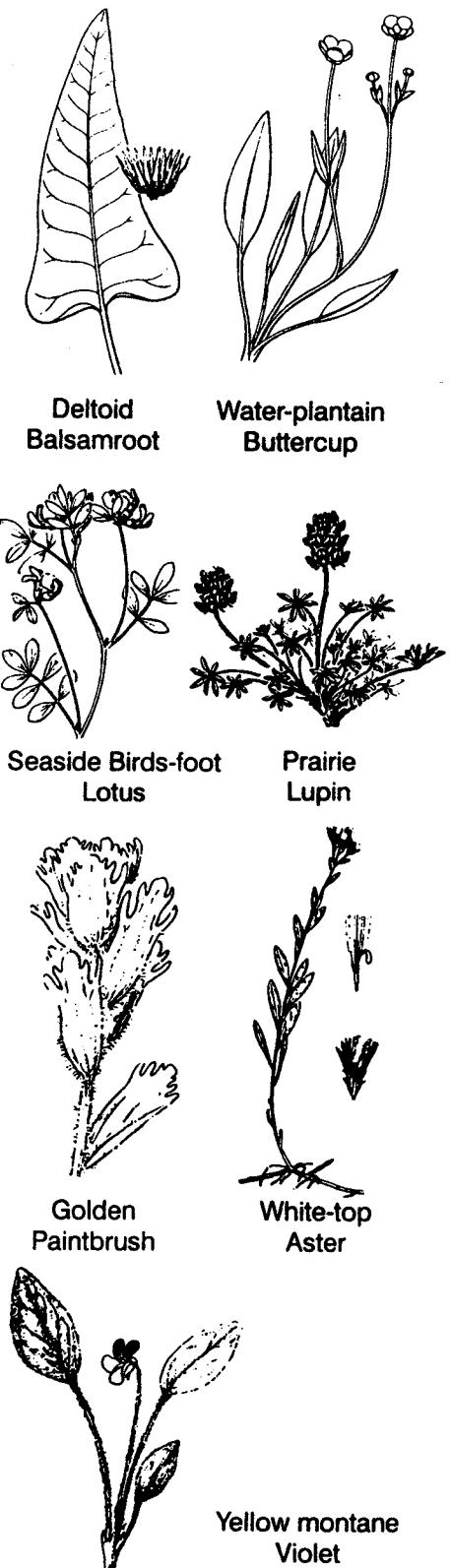
These three species inhabit a limited range within the Garry oak ecosystems on southern Vancouver Island. Declining populations are threatened by competition with exotic species and habitat destruction. Some of these species are also affected by fire suppression and recreational use of critical habitats.

- 4) apple moss (*Bartramia stricta*) — very restricted distribution within Garry oak ecosystems on eastern Vancouver Island near Nanaimo;

- 5) giant helleborine (*Epipactis gigantea*) — restricted distribution associated with riparian habitats in central sub-boreal British Columbia;

- 6) mosquito fern (*Azolla mexicana*) — restricted distribution in the vicinity of Shuswap Lake, threatened by loss of riparian habitats;

- 7) small-flowered lipocarpha (*Lipocarpha micrantha*) — restricted distribution in unique riparian habitats associated with lakes in the South Okanagan.



Drawings of water-plantain buttercup and prairie lupine from *A Field Guide to Pacific States Wildflowers*, illustrator Charles L. Ripper/ author Theodore E. Niehaus; all others from *Flora of the Pacific Northwest* by C. Leo Hitchcock and Arthur Cronquist, illustrator Jeanne R. Janish.

Cattle Point wildflowers have room to grow

After the Third Annual City-wide Broom Bash (October 11 to November 30, 1997), Operation Clean Sweep Coordinator Eric Redekop (595-7270) received this report from Margaret Lidkea (595-8084) on the front at Cattle Point in Oak Bay.

Thanks to 144 people that helped at the Broom Bash (October 18-19, 1997). Girls from 12 different Guiding units and their leaders restored Cattle Point by removing the remaining mature Scotch broom (*Cytisus scoparius*), pulling out broom seedlings, and cutting and pulling invasive daphne (*Daphne laureola*).

Daphne (also known as spurge laurel) is an evergreen shrub with green bell flowers in January that grow into round black berries. The berries are distributed by birds and also by rodents. They are poisonous and therefore potentially dangerous to small children.

Although daphne likes to grow in light shade, it can be found in many areas of Victoria, like the Garry oak meadow. The seeds grow readily, and it has become the latest invasive plant. Some local biologists think that it may become a greater problem than Scotch broom.

Because of its flexible stem and deep tap root, daphne is very hard to pull. If cut, it has a high regrowth rate.

A University of Victoria student, Joe Percival, has been doing a study of daphne in Witty's Lagoon Park. It is hopeful that techniques of removal will be studied in the near future. So far, all information is anecdotal.

Thanks to the 40th Brownies from Cadboro Bay for removing an enormous pile of daphne (7 metres by 1.5 metres by 1.5 metres). These girls are our "Daphne Pioneers" and they are awesome!

Special thanks also to the 3rd Brownies and 13th Guides from Pemberton District in James Bay, the 9th Guides from UVic and the 1st Rangers from Camosun-Craigflower. They spent a whole afternoon pulling out new broom and sawing down the old. It is great to see people from other districts do so much: You are incredible!

Chatham and Shoal Bay Districts included 2nd and 8th Brownies; 1st, 4th, and 30th Guides; 1st Pathfinders, and

CATTLE POINT BROOM BASH COORDINATOR MARGARET LIDKEA has been removing broom with guide units since winter 1993. She introduced the girls to broom bashing by taking each unit on a plant identification walk, indicating the "good guys" and the "bad guys", then removing broom with the girls in the fall of 1993. Since then she has given numerous introductory talks on fauna in the meadows to various units, including those outside her district, as a way to get the girls involved. Guides can earn wildflower and conservation badges.

even a Spark. It is super to see so many old faces and new working hard towards saving one of Canada's most endangered habitats!

One volunteer found seed heads from an orchid. Adolf Ceska, a plant expert from the Conservation Data Centre, identified it as the Seaside rein-orchid (*Habenaria maritima*), a rare, "blue-listed" wildflower. He said that about 20 per cent of British Columbia's rare plants grow in the Garry oak meadow. He also said that by removing broom and daphne, volunteers have helped to save this wildflower and others that live at Cattle Point. Congratulations, everyone and thank you!

□

Coordinator's note: Cutting Scotch broom stems during winter months generally results in higher rates of resprouting from stumps which are not cut below their first lateral root.



Satin-flower (*Sisyrinchium douglasii*)

by Richard J. Hebda

Mary Mills, editor of Coastal Grower (formerly Island Grower), has kindly given us permission to reprint some of Richard's excellent articles on native plants for the garden which have been published in the magazine over the years. From time to time we'd like to include those articles that pertain to Garry oak habitat in our newsletter.

The Iris Family (Iridaceae) has provided gardeners a huge selection of breathtaking ornamental flowers, among them crocuses and irises. There are few native representatives of this family in British Columbia, mainly several species of blue and golden-eyed grasses. Satin-flower (a type of blue-eyed grass) is without doubt the showiest of these though probably the least known in gardens.

Satin-flower grows as a low clump-forming perennial 10-30 cm (4-12") tall. Plants grow from a small mass of matted root-stems (rhizomes) which produce tenacious true roots on the lower surface and narrow grass-like leaves and stems from the upper surface.

The leaves emerge as early as January. They are somewhat flattened, pointed at the tips with basal ones rising about 10 cm (4") tall. Prominent parallel silvery lines mark the surface. The leaf base sheaths the lower part of the stem.

Erect and pointed flower stalks look like leaves. But just below the top, buds and flowers burst out from the side of the stalk on slender stalklets. Each 4-5 cm (1.6-2.0") wide bell consists of six royal purple tepals (undifferentiated sepals and petals) either facing outward or often hanging downward.

There are two to three flowers in each cluster. Three stamens project out of the centre of the flower and surround a three-parted wispy stigma. The egg-bearing ovary swells beneath the tepals and upon maturity becomes a seed capsule. Most wild plants have purple flowers, but pink and white forms occur too.

Satin-flower blooms are among the earliest of all wild flowers to appear. On south Vancouver Island you may see them as early as late February or certainly by March.

The natural range extends from south Vancouver Island to California. Satin-flower sneaks through the Columbia River Gorge onto the sage lands east of the Cascade Mountains suggesting that it might be suitable for southern interior B.C. gardens.

The species thrives in open settings on south Vancouver Island, mainly in shallow mossy soil on rock knolls and meadows. In the U.S. interior, it occurs in sagebrush, pine and open oak woods. A critical feature of the habitat is wet spring soil, though the site can become totally baked in summer.

Satin-flower makes an excellent early spring garden subject for the sunny rock garden. It will grow in light deciduous shade too in normal garden soil, so you can use it at the front of a shrub border.

In the dry season, plant the root clumps just below (2.5 cm [1"]) the surface and mulch lightly with organic matter. The plant settles in quickly but spreads slowly. Usually it blooms the first spring after planting. Satin-flowers propagate easily from small rooted pieces of the matted crown. Once established, they spread by seed. You can raise satin-flowers by sowing mature seed in the summer and leaving it over the winter. Germination is mediocre with only 10-20 per cent of the seeds sprouting.

Do not dig this relatively uncommon plant from the wild, rather try raising it from seed or have the local garden centre order it from a specialist nursery.

The name *Sisyrinchium* is apparently based on an ancient Greek name for another plant, though some experts think it may mean "similar to iris". The species name "*douglasii*" honours David Douglas, a renowned botanical explorer of the Pacific Northwest two centuries ago.

Next time you see large and showy bearded irises, think of their tiny kin, the satin-flower and blue and golden-eyed grasses. These native wildlings may not be as flamboyant but they are equally delightful. For more information on native plants, contact the Botany Unit of the Royal British Columbia Museum, Victoria, B.C. V8V 1X4.



This illustration of Satin-flowers is by Frank L. Beebe from *Wild Flowers In The Pacific Northwest*, authors George A. and Winifred V. Hardy.

updated ESR attached to Mr. Kregier's report that several young Garry oak seedlings that are "in the way" (my words) be transplanted and that many more young oaks should be planted since "Garry oaks are slow growing and often unsuccessfully planted, therefore more should be planted than are desired as mature trees."

As a side note, of concern also are habitat trees containing Great Blue Heron nests which had been colonized as recently as 1995. They are supposed to be retained, but may end up too close to construction areas. Also a proposed stormwater management pond may impact on trembling aspens and three mature Garry oaks.

Incidentally, only Councillor Carol Pickup voted against the proposal.

— Katie Stewart

January Broom Bashes

In January there will be four more "Broom Bashes."

Sunday, January 18

Mount Tolmie, 9 a.m.-3 p.m. Follow pink flagging from Mayfair Drive to work areas. For more information, contact Eric Redekop, 585-7270.

Christmas Hill, 1-4 p.m. Meet at the Nature House parking lot. For more information contact 479-0211.

Sunday, January 25

Summit Park, noon-3 p.m. Meet at the swings, off Blackmore Street. For more information contact Dierdre at 385-6359.

Mount Tolmie, 9 a.m.-3 p.m. For more information, contact Eric Redekop, 595-7270.

For subscriptions to *Coastal Grower*, write to 1075 Alston Street, Victoria, B.C. V9A 356. Tel.: 250-360-0709; fax: 250-360-1709; toll-free: 1-800-816-0747. Tel.: 250-360-0709; fax: 250-360-1709; toll-free: 1-800-816-0747. Email: grower@islandnet.com Homepage: <http://www.islandnet.com/~grower/homepage.html>

ONGOING

PUBLIC RELATIONS

GOMPS DISPLAYS: Phone 386-4792 for possible locations

FUND-RAISING COMMITTEE

As our main fund-raiser, GOMPS has for sale full colour posters of a Garry oak and a meadow of camas/buttercups under a bright spring sky. We also have wildflower placemats, wildflower posters and the *Garry Oak Meadow Colloquium Proceedings* for sale. Call Tom Gillespie at 361-1694.

PRESERVATION/RESTORATION COMMITTEE

SEED/SEEDLING EXCHANGE. Interested members contact Katie Stewart at 386-4792.

OPERATION CLEAN SWEEP (broom removal). Call Eric Redekop at 595-7270 for information.

RESEARCH COMMITTEE

PUBLIC CONSERVATION ASSISTANCE FUND GARRY OAK INVENTORY PROJECT. Project coordinator is Paul Gareau, 592-9089.

NEWSLETTER

If you have any contributions — photos, art work, articles, letters of agreement or disagreement or anything else you'd like to contribute, contact Katie Stewart at 386-4792 or mail to address below.

GARRY OAK MEADOW PRESERVATION SOCIETY
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Director	Janet Simpson	381-6657

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ADDRESS _____

MEMBERSHIP DUES: Donation

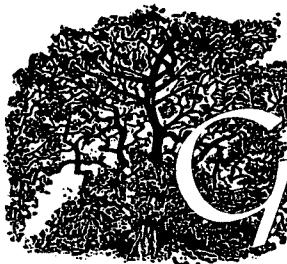
Individual \$15 Family \$20 Please send more information about:

Youth and Associate \$6 (no newsletter) Local sources for Garry oak meadow plants

Gift memberships, send receipt to: Garry Oak Inventory Project

_____ Operation Clean Sweep (broom removal)

_____ Growing, planting Garry oaks



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

FEBRUARY 1998, Vol. 5, No. 2

To B[TK] or not to B[TK]

Once again, the gypsy moth trapping program has revealed the existence of significant numbers of the pests on southern Vancouver Island. Lacking natural controls, the populations are set to explode with the spring.

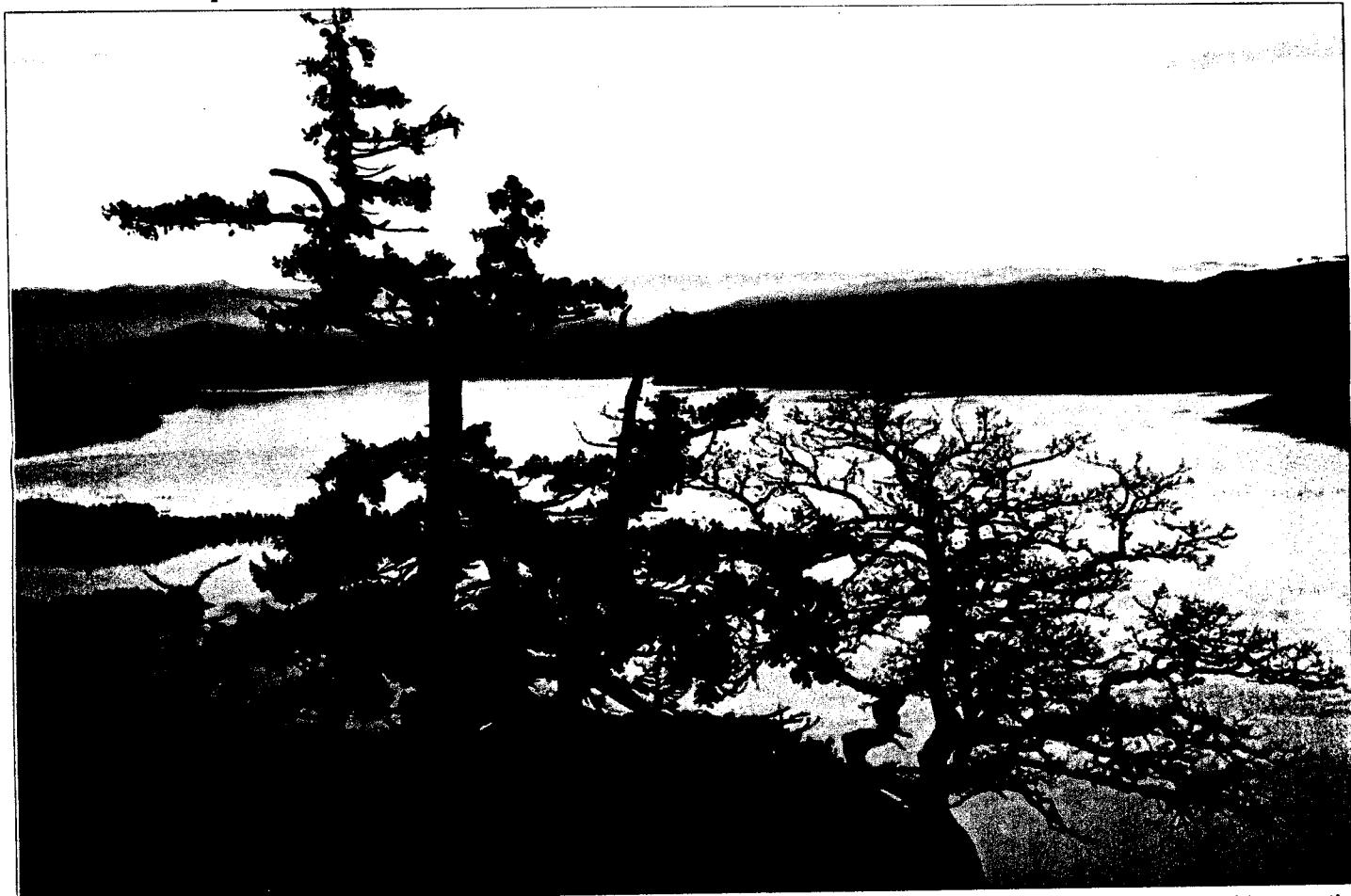
The preferred management is aerial sprays of *Bacillus thuringiensis kurstaki*, BTK, a controversial technique that some believe cause physical distress in susceptible humans. Oth-

ers object to it because of the effect on other moth and butterfly species, but which scientists insist is harmless to everything else and the most environmentally-friendly and effective method of control.

Because of the controversy, your Board of Directors examined the issue. Unanimously, directors voted to support the spray program.

The gypsy moth grows from a voracious caterpillar which can strip trees, denude forests, and wreak economic havoc in sectors such as agriculture and forestry. The caterpillars are covered with stiff hairs that may irritate the skin of people and animals so unfortunate as to come into contact with them.

Having no natural enemies to keep them in check here, they have the po-
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MT. TUAM SILHOUETTE. This photo was taken in December 1997 on Mount Tuam on Salt Spring Island, looking south towards Saanich Inlet.

Photo by Katie Stewart

Garry Oak Leaflet 1

tential to ravage our native flora. The experience of eastern North America could easily be repeated here.

The Garry oak is thought to be especially susceptible. Repeated defoliation could kill a remnant population already stressed by development and pollution here at the edge of its range.

Three populations of gypsy moth have been discovered, two in Esquimalt and one in Langford. BTK appears to be the most benign of the practical controls. The proposed spraying program will be limited to these three sites.

While the caterpillars of other moths and butterflies on the sites will also die, experience elsewhere has shown most populations recover by the second year. So far is known, there are no populations of rare native Lepidoptera in any of the infested sites. No other insects or animals are susceptible to the BTK organism, nor are plants affected. The bacterium is a naturally occurring, soil-borne organism that is rapidly degraded by sunlight or washed off by rain. It does not persist in the environment.

Some people have insisted they have been affected with wheezing or skin rashes during past spray programs. It is noteworthy that at the time of the last program three years ago, there were complaints from people suffering from such symptoms on days when aerial spraying was cancelled due to weather conditions!

Such reports suggest that at least some of the observed effects are the result of the medically well-known "placebo" phenomenon, in which one's beliefs about the effect of a substance cause a physical response in the body.

The only report the Board was able to discover in its research on the question was an undocumented citation of "very slight inhalation and skin irritation ... in ... test animals, likely due to the physical rather than the biological properties of the formulation."

Health officials advise that individuals who think they might be susceptible should stay indoors with windows closed, or leave the area, for an hour during and after spraying.

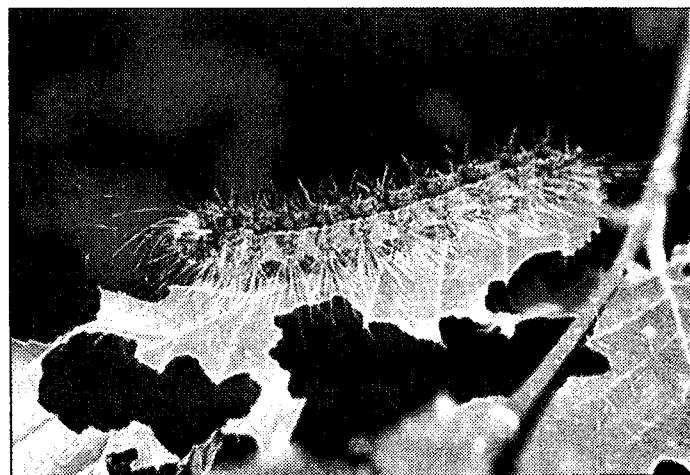
Alternatives to spraying with BTK do not appear to be practical. Because the gypsy moth prefers crevices in which to lay its egg masses, hand-picking is unlikely to be sufficiently effective to control the outbreak. There have been no proposals to use organochlorines or other deadly, persistent chemicals.

If any readers have scientific evidence to refute this chain of reasoning, the Board of Directors would be delighted to have it.

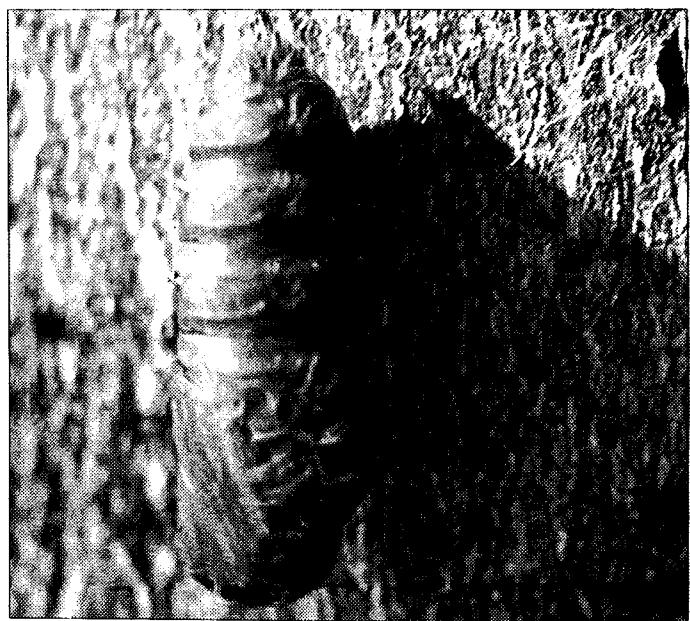
— Sharron White



GYPSY MOTH egg masses

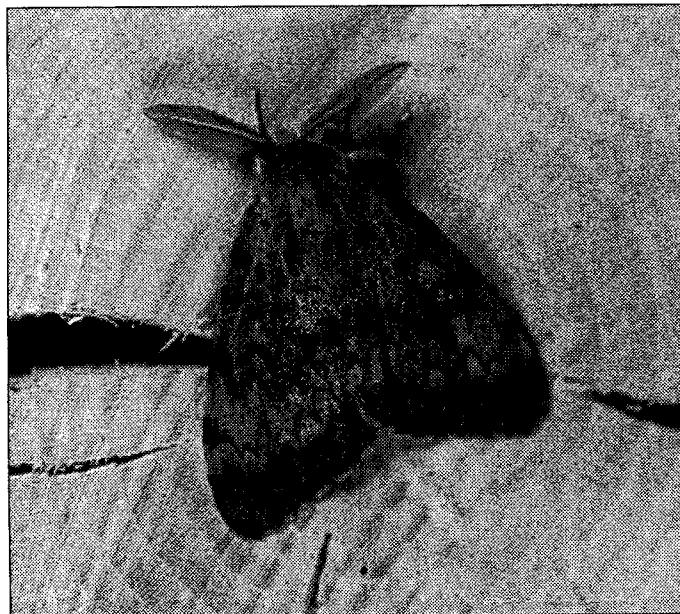


OLDER LARVA eating leaves (above). PUPA (below).





FEMALE ADULT gypsy moth



MALE ADULT gypsy moth

ABOUT THE GYPSY MOTH

The following information is from Agriculture Canada Publication 1811/B (printed in 1986, reprinted 1990).

Gypsy moth caterpillars feed on the foliage of most trees and are among the most serious of pests to deciduous species. Heavy infestations result in complete defoliation; repeated defoliations kill most trees or leave them so weak they become vulnerable to secondary pests. The moth now infests only limited parts of Canada, but could hitch a ride with you to new areas.

A French naturalist brought the gypsy moth to Massachusetts in 1869 for experiments and let a few caterpillars escape into the nearby woods. The resulting infestation now covers the northeastern United States and is still spreading.

Small infestations appeared in southern Quebec in 1924 and in New Brunswick in 1934, but were eradicated. However, the moth became firmly established in Quebec in the 1960s and has spread throughout southern Quebec and southern Ontario. Each year, Agriculture Canada coordinates a nationwide survey to detect new infestations caused by long-distant transportation of the pest. In 1989, efforts to eradicate small infestations were underway in Nova Scotia, New Brunswick and British Columbia.

LIFE CYCLE

Gypsy Moth egg masses are about the size of a quarter, covered with buff-coloured hairs, and resemble a small piece of chamois. Egg masses may be found on trees and shrubs, buildings, vehicles, recreational and camping equipment, yard and garden items, outdoor playthings, firewood and other items stored outdoors or in open storage sheds. Egg masses are often hidden in sheltered locations.

In May, numerous tiny caterpillars hatch from the eggs.

By midsummer they are fully grown, about 6-7 cm long, dark and quite hairy. Each has a double row of tubercles along its back, usually five pairs of blue and six of red (but sometimes all blue or black).

The pupae are dark reddish brown, usually with a few yellowish. You can easily distinguish male from female pupae as the female ones are much larger.

Adults emerge during the latter part of July and on through August. The male (a strong flier) is brown, with a small body and well-developed wings. The female is white with black markings on her wings, and much larger. Despite her well-developed wings, she cannot fly and moves only a short distance from her pupal case — she relies on a scent to attract a male. After mating, she lays her eggs, which pass the winter and hatch the following spring.

Infestations normally spread slowly, with spring breezes blowing young larvae a few kilometres. However, human activities (moving, camping, logging, trucking etc.) spread the pest quickly by transporting egg masses, larvae, pupae or adult females.

HELP STOP THE SPREAD OF GYPSY MOTH

Moving? Check your trailers, boats, lumber, firewood, outdoor furniture and equipment for egg masses, pupae or larvae. Look especially in sheltered spots face down. Camping? Before leaving, remove egg masses, larvae and pupae from your equipment, trailers and vehicles. Check carefully in hidden places around gas cyclinders, hitches, bumpers, wheel recesses, etc.

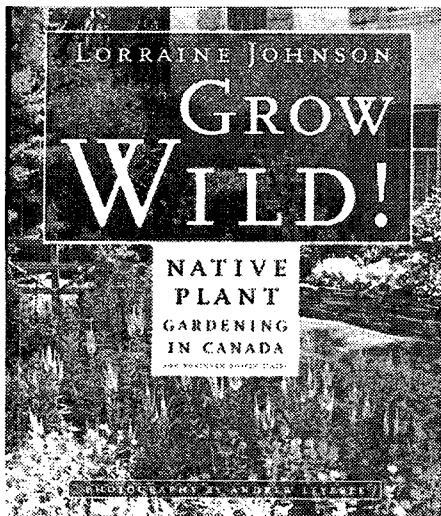
If you think you have found egg masses on your property, or elsewhere, report them immediately by calling collect to: Agriculture Canada Regional Plant Office, New Westminster 666-0593 or Victoria 363-3421.

Grow Wild! Native Plant Gardening in Canada by Lorraine Johnson, Random House of Canada, 1998, \$26.95

In spring 1996 I received a letter from Lorraine Johnson, current president of the Canadian Wildflower Society, asking if I knew of any native plant gardens in the Victoria area, as she was researching for a book on native plant gardening.

Since it was getting close to when our Garry oak meadows would be in bloom, I suggested she visit in April to see them in their full glory. I also gave Lorraine a number of names of who to contact.

Subsequently, she did come out and went on the native plant tour organized



by the Victoria Horticultural Society's Native Plant Study Group and she met some of our local native plant enthusiasts and gardeners. Unfortunately, I was in Ottawa during her visit and didn't meet her.

Lorraine sent us a draft of her section on Garry oak meadows for comment and it was with pleasure that we received an advance copy of her book a couple of weeks ago. Her partner Andrew Leyerle took the accompanying photographs and they are an excellent complement to Lorraine's text.

Here are her opening two paragraphs about Garry oaks: "I'm a long time oak fan, but I wasn't prepared to fall in love with the West Coast's Garry oaks. I feel personally wounded when people call these trees 'messy' or 'ugly.' More appropriate terms, to my mind, unfortunately form a litany of clichés: majestic, enchanting, haunting, magical.

"Whatever, Garry oaks are simply splendid trees. In winter, their gnarled twisty branches form an arresting silhouette against the sky. Their trunks and branches, delicately encrusted with lichens and a spongy layer of bryophytes, delight with subtle shifts of colour and texture. In summer, their thick, shiny leaves — sometimes curled — create a dazzling shimmer and a slight clacking in the wind: the upper side of each leaf is a glossy green, while the underside is a paler green. With each rustle, a sparkling shift of hue conducts an entrancing dance."

The section on gardening in Garry oak meadows includes several lists on native grasses and shrubs and descriptions of the more showy flowers such as harvest brodiaea and camas. A quick lesson on removing broom is mentioned in a side-bar, Han's Roemer and the late Don Vincent give a few maintenance tips and GOMPS also gets a brief mention. There is a gorgeous picture of Don and Wilma Vincent's yard in spring.

Of course, gardening in Garry oak meadows is only a small component of this book. Chapters include: Healing the Land: the promise and possibilities of native plant gardening; The Northwest: from lush coastal forests to dry grasslands; The Prairies: from tall grasses to bursting blooms; The Northeast: from towering woodlands to sunny meadows and Planning and Planting: the nuts and bolts.

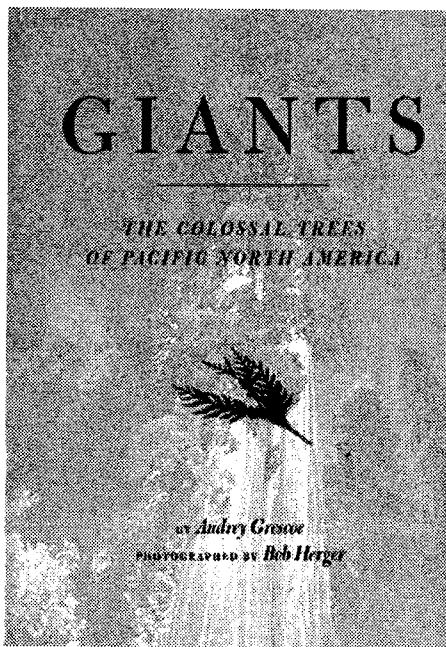
Also included are sources of books, magazines and organizations.

Giants: The Colossal Trees of Pacific North America by Audrey Grescoe, photographed by Bob Herger, Raincoast Books, Vancouver, 1997, \$39.95

Another book of interest to GOMPS members is *Giants: The Colossal Trees of Pacific North America*.

Audrey Grescoe moved to Bowen Island in 1994 to a 2-1/2 acre property with her husband after many years of city living. Living amidst many Douglas-firs made her realize how little she knew about trees or how to identify them. She began a quest and in the process wrote a book.

"This book is a portrait in words and photographs of 11 species that produce



the largest of our coastal trees, with shorter essays on western yew, red alder, and madrone or arbutus — three species interesting for other reasons than sheer size. I have included the giant sequoia, which does not grow on the coast, because it is linked by reputation and with coast redwoods and because nothing else on earth achieves its mass. Although I write about individual trees and have created an American-Canadian combined list of the

present champions, my focus is broader than that. I am portraying whole tribes of trees — where they live, how they reproduce, how they fit into forest ecosystems, how they differ from other trees, and what kind of wood they produce."

I must admit I have never thought of Garry oaks being called giants, perhaps because many Garry oaks are shrubby and not the parkland type. Yet I have seen some magnificent specimens; for example, on Friday, January 30 I no-

ticed a spectacular robust oak along West Saanich Road not far from Mount Newton Cross Road.

Audrey Grescoe titles her chapter on oaks, *Lords of the Land: Garry Oak/Oregon White Oak*.

She qualifies the oak as giant for its size — it can exceed 120 feet in height and its longevity — 400-500 years.

The chapter gives the history and description of the tree, its associated ecosystem, threats to its survival, a

description of GOMPS and its activities including broom removal and acorn planting, and a separate article on fire and insects. The photographs are superb, as befit a coffee table book.

Incidentally, the champion Garry oak is American with a 25'2" circumference, 122' height and 133' crown spread and is located in El Dorado County, California.

If any GOMPS members would like to borrow either of these books, please feel free to contact me at 386-4792.

Getting Their Acts Together: A Report Card on the Implementation of the National Accord for the Protection of Species at Risk

In late autumn 1997, the Canadian Endangered Species Coalition released its report card on how Canada and the provinces are proceeding with implementing the National Accord for the Protection of Species at Risk.

The provincial, territorial and federal ministers responsible for wildlife agreed to the accord in October 1996, committing "jurisdictions to developing legislations and programs to meet 14 specific criteria which together will provide basic protection for endangered species across Canada."

Elements of the Accord

- address all non-domestic species (N)
- provide independent process to assess species status (N)
- legally designate species as endangered/threatened (Nr)
- provide immediate legal protection for endangered/threatened species (N)
- provide protection of habitat of endangered/threatened species (Nr)
- provide for recovery plans in 1-2 years that address identified threats to species and its habitat (Nr)
- ensure multi-jurisdictional cooperation for cross-border species through recovery plans (N)

- consider needs of species at risk as part of environmental assessment process (Nr)
- implement recovery plans in timely fashion (N)
- monitor, assess and report regularly on status of all wild species (N)
- emphasize preventative measures to keep species from becoming at risk (N)
- improve awareness of needs of species at risk (Nr)
- encourage citizens to participate in conservation/protection actions (for the purpose of this evaluation, the criterion is whether the jurisdiction permits citizens to bring "endangered species protection actions" i.e. administrative or legal actions in cases where the jurisdiction's endangered species legislation has not been followed. These "citizen actions" are an important measure in safeguarding the law against non-enforcement. However, it is also recognized that all jurisdictions have informal programs of some kind that are designed to foster citizen participation in wildlife conservation generally, as acknowledged by a N/ grade) (N/)
- provide for enforcement (the criterion of "effective enforcement" is

evaluated only on the basis of the establishment of penalties for offences against endangered species. The evaluation does not reflect the level of on-the-ground enforcement efforts made by a jurisdiction. Rather, it is an evaluation of the legislation as written. The strongest of laws will have little effect on species conservation if it is not implemented with sufficient education, incentives and enforcement.) (Nr).

RESULTS

Ratings ranged from C, C-, D+, D, D- to F. Seven of 13 jurisdictions rated F, including British Columbia. The enclosed brackets (N) etc. above with each element are for British Columbia only.

Nr = Not required or optional. There is a legislative provision allowing this criteria to be met, however, there is no requirement.

N = No, there is no legislative provision satisfying this criterion to be met.

N/ = Not legislated. Certain goals, such as improving public awareness of species at risk, are difficult to legislate, but are met by many of the jurisdictions through non-regulatory programs.

For a summary of British Columbia's legislation, please contact the Coalition at 1-800-267-4088 or (613) 562-3347.

Upcoming

PRAIRIE APPRECIATION DAY

On **May 16**, Prairie Appreciation Day — the equivalent of our Camas Day in Victoria — will be held in the Seattle area. Activities typically include wildflower, geology, birding, butterfly, ethnobotany and birding trips. Trips usually occur at Mima Mounds, Scatter Creek and Glacial Heritage Prairies.

In conjunction with that, the **Washington Native Plant Society** is having its annual study weekend in South Puget Sound from **May 15-17**, with field trips to 18 locations, including Fort Lewis Prairies, Glacial Heritage Prairie and Bald Hill Natural Preserve, which are of particular interest to GOMPS and are not normally open to the public.

Cost is very reasonable; \$70 U.S. covers registration, lodging for two nights at Black Lake Bible Camp, and five meals.

Field trips are filling up quickly. Several members of Friends of Summit Park and I (K.S.) have already sent our registration in. We're keen both to see new meadow areas and to find out what folks south of the border are doing in the way of restoration and other activities.

If you're interested in going, I have information or you can call Judy Lantor, co-chair, South Sound Chapter (360) 753-6056 (work), (360) 357-9614 (home) or e-mail: judy_lantor@mail.fws.gov

SEEDY SATURDAY

Victoria's Fifth Annual Community Seed Barter and Show
Saturday, February 21

10 a.m.-4 p.m.

South Park School (508 Douglas St., Victoria, across from Beacon Hill Park)

Organic heirloom vegetable seeds * old fashioned flower seeds * specialty plants and rare seeds * wildflowers * heritage fruit trees * medicinal herbs * heritage roses * native plant seeds * ancient grains * community seed exchange table (bring your seeds to barter)

Admission \$3, proceeds to Linking Land and Future Farmers.

For more information call Carolyn Herriott, (250) 592-4472

WILDFLOWER WALKS

Mount Tolmie Park, **Sundays, February 22 and March 15**, 1-3 p.m. Meet Eric Redekop at the summit viewpoint, rain or shine.

NATIVE PLANT PROPAGATION WORKSHOP

Tuesday, February 24 and Wednesday, February 25
B.C. Ministry of Forests, Cowichan Lake Research Station
Mesachie Lake, B.C. V0N 2N0

For more information contact Don Carson tel: (250) 749-6811, fax: (250) 749-6020 e-mail: Don.Carson@gems5.gov.bc.ca

Cost \$135 members NPSBC Native Plant Society of British Columbia, \$150 non-members. Cost includes two nights lodging and six meals and related costs

WILDLIFE TREES IN THE URBAN ENVIRONMENT WORKSHOP

Half day workshop about wild tree management issues in urban and municipal settings.

Saturday, February 27, 8:30 a.m.-noon., UVIC. Cost: \$25. Limited to 25 participants. For more information contact the Wildlife Tree Coordinator at (250) 478-7822. To register for the workshop, please send a cheque payable to the Habitat Conservation Trust Fund, P.O. Box 9354, Stn. Prov. Govt., Victoria, B.C. V8W 9M1.

NATIVE PLANT SYMPOSIUM

The fifth annual Native Plant Symposium will be held on **March 7** from 9 a.m. until 4:30 p.m. at UVic in the Elliott Building lecture wing. As usual there will be speakers all day long, displays and items for sale.

LOCAL GREENWAYS AND THE TRANS CANADA TRAIL: CONNECTING HOME AND COUNTRY

March 20-22

Crystal Garden and St. Ann's Academy

Two and a half days of educational and hands-on activities are planned to illustrate the piecing together of the Trans Canada Trail and community Greenways initiatives. From stimulating speakers, learn how individuals and groups of people in your neighbourhood, your community and across the nation are working to bring the Trans Canada Trail to your door step by creating an integrated Greenways system.

Through the free public information fair, discover local Greenways initiatives and how you can be a part of them. Also share your ideas to help envision and plan a part of the Lochside Trail Spur of the Trans Canada Trail in a Community Greenways Design session.

Forum cost is \$20.00 and Saturday awards dinner is \$25, with keynote speaker Andrew Petter. For more information contact the Provincial Capital Commission, 613 Pandora Avenue, Victoria, B.C. Phone 386-1356. Sponsored by Provincial Capital Commission and the Trans Canada Trail Foundation.



IN A NUTSHELL: NOTES FROM THE PRESIDENT

We received a letter in early January from **The Land Conservancy** thanking GOMPS for its donation towards the **South Winchelsea Island** project. So far, no funding has been forthcoming from the Pacific Marine Heritage Legacy, but TLC is committed to buying this island regardless.

Eighty thousand dollars still needs to be raised for the down payment and pledges over the next five years are also needed.

If you haven't yet written Environment Minister Cathy McGregor urging her support of this project, please consider doing so soon. The island is very important for its almost intact Garry oak ecosystem and needs to be protected.



On July 7 last year I represented GOMPS at a Saanich Council meeting regarding the destruction of Garry oak knolls that will result with the proposed Helen Road subdivision.

As council had just dealt with another "Garry oak matter", that of the Rogers Farm subdivision, where

Saanich indicated it was prepared to buy a portion of the oak woodland, it was not too interested in any kind of protection in another subdivision, and voted to sent the proposal to public hearing.

Yet another subdivision near that site, between Helen Road and Mildred Street, shows a plan for 18 lots. Since the Carey Local Area Plan designates this area for single family lots, creative planning for the site is not possible.

GOMPS member **Andria Tetlow** and I walked the site on January 29. Presently a total of 344 trees are on the property. The predominant species is **Garry oak (233)**, followed by **Douglas-fir (77)**, **grand fir (14)**, **arbutus (14)**, **hawthorn (2)** and individual specimens of **Pacific yew**, **big-leaf maple**, **wild cherry** and **apple**. There is also quite a lot of **blackberry** and other invasive vegetation.

According to **Michael Gye**, an arborist with Mt. View Tree Service Ltd., 173 of the oaks are in good condition. Eighty-seven will be retained and 147 will be felled with the current

plan. Of the Douglas-fir, only five will be retained and only three grand fir.



Friends of Knockan Hill Park are urging View Royal Council to purchase 101 High Street as an addition to Knockan Hill Park. The property, now in trust, would be a wonderful addition to the park. It has areas of Douglas-fir and rocky outcrops of Garry oak.



TLC's **Bill Turner**, our intermediary for the purchase of the Rogers Farm oak woodlands, has still not heard from the family regarding GOMPS' offer.



GOMPS member **Eric Redekop** has been broom bashing on Mount Tolmie for several years on a regular basis. A few weeks ago, as he was taking out blackberry bushes, he heard the sound of a chainsaw. He discovered a man cutting up logs parks staff had placed for wildlife use. A confrontation resulted in Eric being assaulted and receiving a mild concussion after being punched and thrown to the ground.

AGM - March 5

The Garry Oak Meadow Preservation Society Annual General Meeting will be held on Thursday, March 5 at 7:30 p.m. at the Swan Lake Nature Sanctuary Nature House.

Two directors will be needed for the 1998-1999 Board. Katie Stewart will again stand for election but Janet Simpson does not plan to run again.

Any GOMPS member who would like to stand or wishes to be nominated, please contact Tom Gillespie at 361-1694.

This year guest speakers will give two illustrated presentations. Wayne Erickson, who completed his Master of Science thesis on classification and interpretation of Garry oak plant communities in 1996, will talk about his November 1997 trip to the International Oak Society's 2nd Symposium, including field trips he took.

Drs. Michael Meagher and George Edwards will talk about their ongoing project — assessing genetic variation in Garry oak. They have sampled a number of British Columbia stands, including those at Yale and Mt. Sumas, and have recently been taking samples in Washington.

We hope to see many of you at the meeting.

7520 PROPERTY FOR SALE

TOWNHOUSE development site? Near K Mart! If you have the perseverance for the rezoning process when it involves Oak Trees & Wetlands then this 3.5-acre site could be your road to riches. Currently asking \$1.2 million but perhaps we can negotiate an offer based on the number of units attainable? Phone Mike Nugent, DFH Real Estate. 477-7291

ONGOING

PUBLIC RELATIONS

GOMPS DISPLAYS: Phone 386-4792 for possible locations

FUND-RAISING COMMITTEE

As our main fund-raiser, GOMPS has for sale full colour posters of a Garry oak and a meadow of camas/buttercups under a bright spring sky. We also have wildflower placemats, wildflower posters and the *Garry Oak Meadow Colloquium Proceedings* for sale. Call Tom Gillespie at 361-1694.

PRESERVATION/RESTORATION COMMITTEE

SEED/SEEDLING EXCHANGE. Interested members contact Katie Stewart at 386-4792.

OPERATION CLEAN SWEEP (broom removal). Call Eric Redekop at 595-7270 for information.

RESEARCH COMMITTEE

PUBLIC CONSERVATION ASSISTANCE FUND GARRY OAK INVENTORY PROJECT. Project coordinator is Paul Gareau, 592-9089.

NEWSLETTER

If you have any contributions — photos, art work, articles, letters of agreement or disagreement or anything else you'd like to contribute, contact Katie Stewart at 386-4792 or mail to address below.

GARRY OAK MEADOW PRESERVATION SOCIETY
c/o A-954 QUEENS AVENUE, VICTORIA, B.C. V8T 1M6

DIRECTORS AND OFFICERS OF THE SOCIETY

President and Public Relations Chair	Katie Stewart	386-4792
	e-mail camassia@bc.sympatico.ca	
Vice-President	Pierre d'Estrubé	477-2410
Treasurer and Finance Chair	Hal Gibbard	477-2986
Secretary and Membership		
Development Chair	Sharron Waite	479-3380
Director and Program Chair	Paul Gareau	592-9089
	e-mail upgareau@islandnet.com	
Director	Tom Gillespie	361-1694
	e-mail ua620@freenet.victoria.bc.ca	
Director	Janet Simpson	381-6657

MEMBERSHIPS AND DONATIONS

NAME _____

ADDRESS _____

MEMBERSHIP DUES: Donation

Individual \$15 Family \$20 Please send more information about:

Youth and Associate \$6 (no newsletter) Local sources for Garry oak meadow plants

Gift memberships, send receipt to: Garry Oak Inventory Project

_____ Operation Clean Sweep (broom removal)

_____ Growing, planting Garry oaks



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

MARCH 1998, Vol. 5, No. 3

Government House Garry oak woodland burn project proposal

GOMPS was contacted by the Garry oak woodland group of Friends of Government House Gardens Society, asking for our support for the following project (written by the society). Directors Hal Gibbard and Janet Simpson went on a tour of the proposed burn site on February 23, along with several local experts including Wayne Erickson, Richard Hebda and Hans Roemer, FoGHGS members, representatives from the fire department and others.

Background

Prior to European settlement, fire was an integral aspect of Garry oak (*Quercus garryana*) ecosystems throughout the tree's range in western North America. Many of these fires were probably of lightning origin, but aboriginal peoples also set fires for a variety of reasons.

In British Columbia, the central coast Salish used fire to promote a successful crop of camas (*Camassia quamash* and *C. leichtlinii*). Fires were set in the late summer or fall, following camas harvest, on an apparently annual or semi-annual basis. Because of the frequency of these fires, natural fuels were maintained at low levels, producing low-intensity burns.

Subsequent to European settlement in the mid 1800s, fire suppression has dramatically changed the vegetation structure and species composition of Garry oak ecosystems. Woody vegetation has encroached into many areas where it was previously

unable to persist within a frequent fire regime. Alterations in the herb community result, probably from a combination of factors including shading, competition, the buildup of the duff layer and changes in nutrient availability.

Land managers and ecologists have become increasingly alarmed about the potential loss of Garry oak ecosystems. According to James Agee (1993), "Without prescriptive treatment up to 50 percent of the threatened oak woodlands could be beyond help by the year 2010."

Of additional concern is the high buildup of fuels. Accidental fires that ignite under such conditions can be intense and difficult to control, and can have serious consequences for the ecosystems and for nearby property.

In recent years, agencies have responded to the situation by introducing prescribed fire. Characteristics of pre- and post-burn vegetation are measured to monitor responses, including native species and the numerous exotics that have invaded the ecosystems.

In general, fire has shown to be an effective restorative tool. In some cases, fire may not be sufficient to suppress exotics, and may even promote growth of some exotic species. In such cases, other mitigation measures may be warranted.

Proposed burn site

The Government House property includes an 8.9-ha Garry oak woodland. The woodland was grazed by live-

Continued on page 2



CAMAS in Uplands Park.

Photo by Katie Stewart

Gov't. House continued from page 1

stock in the past. Public access is restricted except for infrequent group tours. The property is mowed a few times a year as a fire control measure.

The Government House Garry oak ecosystem ecological management plan identifies restoration as a key management objective. Most restoration effort to date has entailed the removal of Scotch broom (*Cytisus scoparius*) and other exotic species.

It has been observed that in places where broom has been removed, spring blooming wildflowers such as camas have flourished. However, exotic grasses also appear to be flourishing, and the impacts of these grasses is of great concern.

The proposed burn site is approximately triangular in shape, about 55 m long and 35 m across at the wide end. It is located in a shallow depression (swale) between two rocky outcrops on a southern aspect.

The detailed species composition of the site has not yet been determined, but numerous camas plants have been noted. Rooted in rock crevices and in the deeper soil at the top of the site are Garry oak trees, most between 2 and 7 m in height.

Small patches of snowberry (*Symphoricarpos albus*) and Oregon grape (*Mahonia aquifolium*) are present, and licorice fern (*Polypodium glycyrrhiza*) grows on the rocky outcrop. Broom has been removed, but continues to regenerate from the seed bank. Adjacent to the proposed burn site is a similar swale which will not be burned and will serve as a control.

Project objective and methods

The project will examine the efficacy of fire as a tool for restoring the Garry oak woodland to approximate pre-contact conditions. An adaptive management approach will be used, in which burning is introduced and evaluated within a scientific framework.

More specifically, the project objectives are:

1. Maintenance of open vegetation structure;
2. Enhancement and increased productivity of native meadow vegetation;
3. Reduction and possible elimination of exotic vegetation;
4. Reduction of the fuel load and the fire hazard to Government House and the neighbourhood;
5. Increased public awareness and appreciation of the fragile Garry oak ecosystem and the important role of prescribed fire management.

Pending approval, burning will be conducted in September for three consecutive years beginning in 1998. Personnel from B.C. Ministry of Forests Protection Branch will conduct the burn. Municipal firemen will be invited to be present and thus afforded a training opportunity in wildland fire behaviour and management.

Instruments provided by the Canadian Forest Service and the Ministry of Forests will be used to monitor site and weather conditions prior to the burn and to monitor fire behaviour during the burn.

Vegetation will be surveyed for the duration of the project, beginning with the pre-burn sampling this spring. As part of her Ph.D. dissertation (UVic), Brenda Beckwith will monitor the impacts of fire on the ecosystem (soil and vegetation characteristics) and, more specifically, on camas (density and various plant attributes). Marilyn Fuchs will monitor oak mortality and reproduction.

Because prescribed fire, particularly in an urban situation, is a controversial issue, we will undertake a concerted effort at public education.

We will use a combination of approaches, including mass media contacts, public meetings, interpretive tours, and door-to-door contact of the residents in the vicinity of Government House.

Co-operating agencies and organizations:

Government House

Friends of Government House Gardens
Garry Oak Woodland Management Committee

University of Victoria

Canadian Forest Service

B.C. Ministry of Forests, Protection Branch

B.C. Ministry of Environment, Lands and Parks, Resources Inventory Branch

Prescribed fire is currently or was recently used in the following locations:

Garry oak ecosystem:

Bald Hills Oak Woodlands of Redwood National Park and Annadel State Park (California)

Oak Patch Natural Area Preserve (Washington)

Prairie ecosystems containing camas:

Mima Mounds Natural Area Preserve and Yellow Island Preserve (Washington)

Urban oak ecosystems:

High Park Oak Woodland, Toronto
Vestal Grove, North Branch, near Chicago

Selected references

Agee, J.K. 1993. *Fire Ecology of Pacific Northwest Forests*, Island Press, Washington, D.C. and Covelo, California.

Hastings, M.S., S. Barnhart, and J.R. McBride. In press. *Restoration management of northern oak woodlands*. In Pillsbury, H.H., J. Verner and W.D. Tietje, tech. coords. Proceedings of a Symposium on Oak Woodlands: Ecology, Management and Urban Interface Issues, 19-22 March 1996, San Luis Obispo, CA. Gen. Tech. Rep. GTR-PSW-160. Pacific Southwest Research Station, USDA Forest Service, Albany, CA.

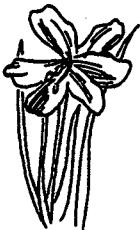
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Continued on page 6

Native plant courses with The Field-Naturalist

GARDENING WITH NATIVE PLANTS

Whether you have an extensive garden or just a few pots on your balcony, this course will help you bring native plants and their accompanying wild creatures close to your home. Carrina Maslovat has designed the course for the novice to the expert gardener. It covers a range of topics from basic "how-tos" to garden design ideas.

An evening lecture and slide show will introduce you to southern Vancouver Island's showiest natives. A practical "hands-on" session at Francis/King Regional Park will provide information on how to plant a garden, choose native plants and maintain and care for your garden once it is established.



Ideas for habitat creation and how to attract wildlife will be discussed for a variety of different garden conditions. Landscape design principles and creating a site plan will give participants the tools to transform their yards into havens.

Evening lecture: 7-8:30 p.m., April 23 at The Field-Naturalist; field session: 9a.m.-4:00 p.m., April 25 at Francis/King Regional Park. Cost: \$45 plus GST. Limited to 15 participants.

SPRING BOTANY

Covering a wide range of habitats and taught by some of Victoria's best known botanists, this course is designed for people of all skill levels. An evening introductory lecture is followed by four field sessions that will explore a range of ecosystems: Garry oak meadow, rock outcrop, woodland and coastal beach.

Topics covered in the field sessions will include plant identification, field characteristics, conservation, ecology and ethnobotanical uses.

Participants will complete the course with a good grasp of local native plants, tools to identify basic family groups and how to use field-guides.

Field sessions are from 9 to 12 on Saturday mornings. Bring a lunch if you would like to stay out a bit longer. To take into account spring conditions, final details of meeting locations will be finalized for you at the evening lecture, 7:00 p.m., April 30 at The Field-Naturalist. The cost of the course is \$75, plus GST. Limit of 15 participants.

Introductory lecture

We'll look at a variety of field-guides and learn identification tools to use while out in the field. Botanical Latin and nomenclature will also be covered. A slide show will highlight some of the plants we will see in the following weeks.

Session 1 — May 2

A trip to Beacon Hill Park with Carrina Maslovat will give you a new perspective on this remarkable Garry oak meadow. We'll find out how the oaks have played a role in Victoria's early settlement and first nations connections with this ecosystem.

Session 2 — May 9

There's always lots to see at Witty's, especially when you're there with Andy McKinnon. The range of ecosystem types, from dense forest to more open shoreline provides a broad range of trees, plants and shrubs to enjoy.

Session 3 — May 16

A short hike up Mill Hill Regional



Park with Brenda Costanzo highlights our stunning rock outcrop species. Some of Vancouver Island's rarest plants are found in this ecosystem.

Session 4 — May 23

Island View Beach is a great spot for looking at the ecology and adaptations of shore plants to salt and moving sand conditions. Bob Ogilvie will take care to look at the diversity of grasses, sedges and rushes in the salt marshes as well as the plants of nearby hedgerows and human impacts on the area.

The leaders

Carrina Maslovat, a member of The Field-Naturalist staff, has been a native plant enthusiast for over six years. She has an academic background in botany and environmental studies and is co-owner of Woodland Native Plant Nursery and the chair of the Victoria Horticultural Society's Native Plant Study Group.

Andy McKinnon, with the Research Branch of the Ministry of Forests, has co-edited *Plants of Coastal B.C.*, along with three other B.C. plant guides. He is a Metchosin resident, kilt wearer and a mandolin player.

Brenda Costanzo is the head of the University of Victoria's herbarium and has taught numerous native plant and gardening courses. She is also a founding member of the Native Plant Study Group.

Bob Ogilvie, a botanist by profession, taught plant ecology and plant identification at the University of Calgary for 15 years before he was curator of botany at the Royal B.C. Museum for 18 years. Among the many highlights of his career has been his recent work on rare plants and endemics on the Queen Charlotte Islands and connections of their ranges to the Brooks Peninsula on Vancouver Island and adjoining coastal areas.

The Field-Naturalist is located at 1126 Blanshard Street, Victoria. Telephone (250) 388-4174.

South Winchelsea Island report

This report comes from The Land Conservancy's February 27, 1998 update.

TLC successfully negotiated a change of date for the down payment from March 25 to June 25. Although there is no additional change to the overall total price, TLC had to increase its February 25 payment to \$20,000 and will pay another \$5,000 on April 25. This payment is in the bank already.

The June 25 down payment will be \$105,000. TLC has already been promised \$10,000 from the Canada Trust Friends of the Environment Foundation and \$50,000 from Mountain Equipment Coop. Locally, the Graduating Class of the University of Victoria just

donated \$1500. Friends of Summit Park have committed \$100 from their limited funds.

TLC and its partners, Islands Trust and the Nanaimo Area Land Trust, are now concentrating on raising the last \$40,000 needed for the down payment. Another \$68,000 will have to be raised for the December first mortgage payment.

What can you do? If you haven't already done so, write to **B.C. Environment Minister Cathy McGregor** and **Canadian Heritage Minister Sheila Copps** urging their support for the inclusion of South Winchelsea under Pacific Marine Heritage Legacy pro-

gram. Send copies of your letters to David Anderson and your local MLAs.

Make a tax-deductible donation and/or pledges over time. Already \$40,000 has been pledged towards mortgage payments. Join TLC and/or buy a gift membership. Talk about the project with friends, family and co-workers.

Right now TLC is selling \$2 raffle tickets for a prize of a framed Robert Bateman print called "The Air, The Forest and The Watch." Two thousand tickets are being sold in books of 25 and more help is needed in selling them before the April 4 draw. If you can help out or want to help out financially, contact Bill Turner at 479-8023.

SWAN LAKE CHRISTMAS HILL NATURE SANCTUARY

Gardening for Wildlife

A Native Plant Gardening Sale and Demonstration Saturday and Sunday, April 18 and 19

10 a.m. to 3 p.m. • 3873 Swan Lake Road

A selection of over 2,000 native plants (more than 80 species) are available at this special weekend event, as well as seeds, books, bird feeders and nesting boxes. Workshops, presentations, demonstrations and displays on gardening with native plants and developing wildlife habitat in urban settings are included in the admission price.

PRESENTATIONS:

Attracting Beneficial Insects — Linda Gilkeson

Medicinal Uses of Plants — Carol McGrath

Attracting Birds — Darren Copley

Native Plant Garden Tours — Brenda Costanzo

Why Garden with Native Plants — Richard Hebda

Getting Rid of Grass: Native Plants in Landscape — Judith Reeve

Native Plant Seeds and Propagation — Carrina Maslovat and more!

Sale: Native plants, native plant seeds, books, bird feeders, nesting boxes, gardening supplies

Door prizes, displays

Admission: \$3 day, \$5 weekend pass — Friends, members free

Henderson's shooting star (*Dodecatheon hendersonii*)

By Richard J. Hebda

Mary Mills, editor of Coastal Grower (formerly Island Grower), has kindly given us permission to reprint some of Richard's excellent articles on native plants for the garden which have been published over the years. From time to time we'd like to include those articles that pertain to Garry oak habitat in our newsletter.

British Columbia is home to beautiful wildflowers which form spectacular coloured meadows. Several species of the distinctive shooting stars (*Dodecatheon*) decorate many of our meadows. Among them, Henderson's shooting star, also known as broad-leaved shooting star, is attractive, performs well in the garden and can be used to restore natural meadows.

Shooting stars are perennial herbs that grow from a tufted rosette of basal leaves. Beneath the leaf mass are short thickened tubers which extend into short roots.

The fleshy leaves of Henderson's shooting star are somewhat rounded and have no teeth. Those of some species, such as few-flowered shooting star (*Dodecatheon pulchellum*) have long strap-shaped leaves.

Blooms are borne in sparse clusters at the end of medium tall (30-40 cm or 12-16") stems. The flowers perch upon stalklets all attached to a single point at the stem's summit. At first the flowers point downward but with age they turn upward as if to greet the sun.

The flowers have a most fascinating form, closely resembling that of their cousins in the Primrose Family (Primulaceae), the cyclamens.

The five rose purple petals fuse together at the base into a whitish cup. From the edge of the cup the strap-shaped petals sweep back like the tail of a comet, giving the effect of a star plummeting to earth. Look closely and you will see that the top of the ovary pokes out from the cup.

Four or five stamens form a tight beak-like cluster around a long thin style. Give the flower a sniff and you will discover a gently spicy perfume with an almost exotic edge.

Flowers normally appear in late April and early May. When they fade, the ovary swells into a seed-bearing capsule from which the tiny seeds shake out during dry summer months.

This shooting star occurs in low elevation meadows and open woodlands. It grows especially abundantly among the open rocky knolls of southeast Vancouver Island.

Breathtaking colonies spread through the grass groundcover of some Garry oak stands. In B.C. you will only find this species on the warm east side of Vancouver Island.

The geographic range extends along the east side of the Cascade mountains, south to California where the species thrives in great abundance.

Shooting stars are an excellent native substitute for their largely non-native cousins, the primroses (*Primula* spp.). The species you choose to grow depends on garden site conditions.

Certain species prefer moist settings whereas others, notably Henderson's shooting star, revel under dry conditions.

Choose a sunny open spot in the garden with at least 10 cm (4") of humus-rich soil. Plant with the crown just below the surface; you may want to cover it with a bit of organic litter or moss. Once established, the crown will divide many times over and develop into a relatively dense clump producing many flower stems.

Clumps can be divided in the fall before the rains start. Dig out the mass of crowns and roots and gently pull apart the crowns and replant them separately.

To establish shooting star in a meadow, plant in the fall in loose

mossy turf. Prevent grasses from forming an impenetrable thatch and choking out the crown. Try shooting stars first where the grass grows poorly during summer drought. A site with shallow soil over bedrock or gravel is best. Do not water. This species is strongly drought resistant.

Have your garden centre order shooting stars from a specialist nursery. Do not dig up these wildflowers, or any wildflowers for that matter, in the wild.

Gather seed in the summer and fall and sow on sandy peat soil, covering lightly with peat and aquarium grit. Leave plants to germinate over winter and then develop until the dormant season before planting into larger pots.



HENDERSON'S SHOOTING STAR
photo is from Lewis Clark's *Field Guide to Wild Flowers of Field and Slope in the Pacific Northwest*.

If you're wanting to buy Henderson's (or broad-leaved as it's also known) shooting star, you can find it locally at Woodland Native Plant Nursery (478-6084. The nursery also sells shooting star seeds. Fraser's Thimble Farms on Saltspring Island (537-5788) also sells the plant. Both places also sell many other native plants.

Continued from page 2

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Guided walks in Garry oak meadows

Sundays, April 5, 26 in Mount Tolmie Park from 1-3 p.m. Meet Eric Redekop at the summit viewpoint, rain or shine.

Sunday, April 19 in Summit Park 1 p.m. Meet at the swings (in the park at the top of Blackwood Street).

Sunday, April 19, Camas Day, 11:00 a.m. and 1:00 p.m. Meet at the flagpole at the top of Beacon Hill Park. Other activities include a bird walk at 9:00 a.m. from the flagpole and butterflies and natural history, both of which start at the same time and same location as the wildflower walks.

Native plant rescues

I received many phone calls regarding doing native plant rescues at the Costco site. I suggested people contact Rob Buchan, Langford's planner. One person who called works for Esquimalt Parks and planned to take municipal workers to the site. There are far more plants there than can possibly be rescued.

Rescues have been going on at this site regularly and at other locations. If you're interested in participating, contact Maureen Funk at 479-4848 or Jean Forrest at 658-5740. Both are members of the Victoria Horticultural Society's Native Plant Study Group.

— Katie Stewart

ONGOING

PUBLIC RELATIONS

GOMPS DISPLAYS: Phone 386-4792 for possible locations

FUND-RAISING COMMITTEE

As our main fund-raiser, GOMPS has for sale full colour posters of a Garry oak and a meadow of camas/buttercups under a bright spring sky. We also have wildflower placemats, wildflower posters and the *Garry Oak Meadow Colloquium Proceedings* for sale. Call Tom Gillespie at 361-1694.

PRESERVATION/RESTORATION COMMITTEE

SEED/SEEDLING EXCHANGE. Interested members contact Katie Stewart at 386-4792.

OPERATION CLEAN SWEEP (broom removal). Call Eric Redekop at 595-7270 for information.

RESEARCH COMMITTEE

PUBLIC CONSERVATION ASSISTANCE FUND GARRY OAK INVENTORY PROJECT. Project coordinator is Paul Gareau, 592-9089.

NEWSLETTER

If you have any contributions — photos, art work, articles, letters of agreement or disagreement or anything else you'd like to contribute, contact Katie Stewart at 386-4792 or mail to address below.

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c/o A-954 QUEENS AVENUE, VICTORIA, B.C. V8T 1M6

DIRECTORS AND OFFICERS OF THE SOCIETY

President and Public Relations Chair	Katie Stewart	386-4792
	e-mail	camassia@bc.sympatico.ca
Vice-President	Pierre d'Estrubé	477-2410
Treasurer and Finance Chair	Hal Gibbard	477-2986
Secretary and Membership		
Development Chair	Sharron Waite	479-3380
Director and Program Chair	Paul Gareau	592-9089
	e-mail	upgareau@islandnet.com
Director	Tom Gillespie	361-1694
	e-mail	ua620@freenet.victoria.bc.ca
Director	Janet Simpson	381-6657

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MEMBERSHIP DUES:

Donation

Individual \$15 Family \$20

Please send more information about:

Youth and Associate \$6 (no newsletter)

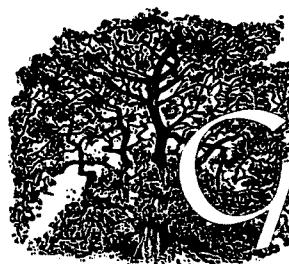
Local sources for Garry oak meadow plants

Gift memberships, send receipt to:

Garry Oak Inventory Project

Operation Clean Sweep (broom removal)

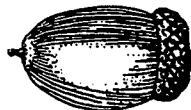
Growing, planting Garry oaks



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

APRIL 1998, Vol. 5, No. 1



IN A NUTSHELL: NOTES FROM THE PRESIDENT

April 5 — Today was a day in paradise. A hike up Mount Wells (CRD Park Reserve) in the Sooke Hills was all pleasure as I delighted in the spring wildflowers that I spotted on the way up, some just coming into flower, others in their prime or just past: skunk cabbage (*Lysichiton americanum*) ... trailing yellow violet (*Viola glabella*) ... Pacific bleeding heart (*Dicentra formosa*) ... fawn lily (*Erythronium oregonum*) ... fairyslipper (*Calypso bulbosa*) ... broad-leaved shooting-star (*Dodecatheon hendersonii*) ... field chickweed (*Cerastium arvense*) ... sea blush (*Plectris congesta*) ... blue-eyed Mary (*Collinsia parviflora*) ... chickweed monkey-flower (*Mimulus alsinoides*) ... spring-gold (*Lomatium utriculatum*) ... western buttercup (*Ranunculus occidentalis*) ... small-flowered woodland star (*Lithophragma parviflorum*) ... western saxifrage (*Saxifraga occidentalis*) ... grassland saxifrage (*S. integrifolia*).



Arctostaphylos columbiana by
Mareen S. Kruckeberg from
*Gardening with Native Plants
of the Pacific Northwest*
by Arthur S. Kruckeberg

At the top of Mount Wells were many masses of satin-flower (*Sisyrinchium douglasii*) on the rocky outcrops and even below some of my favourite shrub, hairy manzanita (*Arctostaphylos columbiana*). Heartfelt thanks to whoever it was that had the foresight to preserve this mountain.



April 10 — It occurred to me as I was driving along Blenkinsop Road that GOMPS ought to be maintaining an inventory of Garry oak meadows. I don't mean an inventory such as the Conservation Data Centre's Sensitive Ecosystems Inventory or a list of which parks have Garry oak meadows but rather the very small, remnant meadows that occur on private property.

GOMPS members (now deceased) Don and Wilma Vincent's property at 3841 Blenkinsop is one of the more well-known properties that has been featured in magazine and newspaper articles and books for its meadows (albeit with non-native species).

Two other properties I noticed today on the same road also have remnant meadows. Two doors down from the Vincents (3821 Blenkinsop) there are good patches of fawn lilies and shooting stars.

At 3686 Blenkinsop is an area of fawn lilies. I know of another eight properties with remnant meadows but do not yet have the addresses.

And of course, there is St. Mary The Virgin Church in Metchosin, which is carefully managed by volunteers to allow the prolific fawn lilies to multiply. It's on my must list of places to take visitors in the spring.

GOMPS director Pierre d'Estrubé told the board at our meeting this month of a property on Ascot Road being subdivided. Unfortunately, the area being lopped off contains a wonderful spread of fawn lilies.

Do you know of any properties that still contain Garry oak meadows or at least some areas of wildflowers? If so, please let me know and we'll get a list going.

Ultimately, we could talk to the owners of the importance of allowing the wildflowers to grow. Just imagine what this area would look like in the spring if many more meadows were allowed to flower and we got used to seeing "messy" yards while the seeds ripened and dispersed.



GOMPS members know that I often exhort them to write letters to politicians and bureaucrats.

The Steelhead Society of B.C. published a little booklet on writing letters that count.

There's an interesting quote that may inspire you: "As a general rule,

Continued on page 2

1998-1999 GOMPS Board

At our April 2 board meeting, the following executive was chosen: Katie Stewart will serve one more year as president, Pierre d'Estrubé will continue as vice-president and Sharron Waite as secretary, and Tom Gillespie will be treasurer again after a one year's absence.

The board welcomes new director Dr. Michael Meagher, who was acclaimed at our March 5 Annual General Meeting.

We'd also like to thank Janet Simpson for her work on the board and hope to see her return as a director in the future.

The next board meeting will be on May 12 at Paul Gareau's, 3503 Camcrest Place. GOMPS members are welcome to attend any or all board meetings. If there is anything you think we should know or be discussing, please phone any of us.

GOMPS member wins award

Ray Zimmermann also received a Provincial Capital Commission Greenways Leadership Award at the March 21 dinner mentioned in another article.

Ray's award was "in recognition of his valuable contribution towards the protection of Ayum Creek."

For those of you who don't know Ray, he worked on many issues concerning the Water District including the initiating the five-year campaign which culminated in the protection of the off-catchment Water District lands as the new CRD Sooke Hills Park.

Welcome new members

Monica Hay, Vancouver; Judith Anderson, Marilyn Fuchs, Jane and George Heffelfinger, Patricia Johnson, Marsha Williams and Erin Woods of Victoria.

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Director	Michael Meagher	727-7675

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MEMBERSHIP DUES:	<input type="checkbox"/> Donation
<input type="checkbox"/> Individual \$15	<input type="checkbox"/> Family \$20
	Please send more information about:
<input type="checkbox"/> Youth and Associate \$6 (no newsletter)	<input type="checkbox"/> Local sources for Garry oak meadow plants
<input type="checkbox"/> Gift memberships, send receipt to:	<input type="checkbox"/> Garry Oak Inventory Project
_____	<input type="checkbox"/> Operation Clean Sweep (broom removal)
_____	<input type="checkbox"/> Growing, planting Garry oaks

politicians and bureaucrats credit every letter they receive as representing the thoughts and feelings of 500 to 1000 taxpayers who simply didn't bother to report their concerns. That makes each letter (your letter) up to a 1000 times more important than most people realize. In a very real but paradoxical sense, other people's laziness or reluctance to write makes the letter writer extremely influential."

One critical component in the Sooke Hills becoming a regional park was the hundreds of letters of support written to the Water Board, the Capital Regional District and municipal and provincial politicians.



GOMPS directors spoke on behalf of the Society at two recent Saanich public hearings.

On March 17, the **16-lot subdivision at 3936 Helen Road** was approved. Sharron Waite was the only person speaking for the Garry oak habitat, to no avail.

The original plan was to keep the large rocky outcrop in the centre of the development and to have the road

on the periphery.

Neighbours on Knockan Drive objected to having a road behind their houses so now the rocky outcrop will be blasted for the road. There is a thick camas bed below the outcrop. We hope that some plant rescuing might save at least some of it.

At the March 31 **Hutchison land** public hearing I spoke for the proposal although not the development *per se*. I mentioned that one of the purposes of the Regional Growth Strategy is to "promote human settlement that is socially, economically and environmentally healthy."

The increased density in housing on the site in exchange for habitat protection is much preferable to a scenario of only single family dwellings and a minimum five per cent park dedication.

The protected parts of this subdivision include the area designated as high priority for the Garry oak ecosystem as shown in the Christmas Hill Slopes Action Area Plan and also potentially the area shown as medium priority, with its native understorey and meadow areas.

The six lots containing this latter Garry oak community will not be developed for five years, to allow for their purchase for protection. Saanich will acquire two of those lots which adjoin the other protected area immediately and we need to pressure Saanich to acquire the others.

Of course, not all the neighbours are happy with the increased density and projected traffic increase. But accommodating both development and protection has to be a compromise.



Dozens of people have been participating in weekend plant rescues at the Costco site in Langford.

Apparently developer Jack Nelson phoned the *Goldstream News Gazette* to ask that a photographer take pictures. Good PR, eh Jack? Far better PR would have been to build elsewhere and save the Garry oak meadows and woodlands.

According to an April 1 *Gazette* article, 4-1/4 acres of land in the Cressey-Costco development has been set aside for a school and a 3/4-acre stand of Garry oaks will be preserved.

Great Greenways gathering: *Green groups galore garner galvanic glee*

(An Eric Redekop headline)

The Trans-Canada Trail Greenways Forum and Information Fair March 20-22 at the Crystal Garden and Saint Ann's Academy was attended by over 200 delegates from the Victoria region, every Canadian province and the Yukon Territory.

The event kicked off Friday afternoon with remarks from Provincial Capital Commission Chair Pam Charlesworth, Environment Minister Cathy MacGregor and the Minister Responsible for the PCC, Andrew Petter.

Among the highlights was an announcement that Victoria would no longer be known as the "Garden City," but would hereafter be called the "Greenways Capital," an expression which earlier led the cover and feature focus for *Monday Magazine* (Little England is Dead; March 19-25, pp. 9-10). As Jenny Manzer's byline says, "Forget high tea. Victoria's next boom will be built on parks, paths and Gore-Tex-collar jobs."

The free public Information Fair on the Crystal Garden mezzanine ran Friday afternoon and all day Saturday

while delegates crammed workshops on the coast-to-coast-to-coast Trans-Canada Trail and local Greenways initiatives and issues in the newly-restored and re-opened Saint Ann's Academy auditorium, chapel and boardroom.

At the Awards Banquet Saturday night, the PCC distributed the first ever "Greenways Community Awards" in categories for Achievement, Partnership and Leadership.

Volunteer broom, blackberry and ivy bashers throughout the region were recognized as Pam Charlesworth and



BEFORE AND AFTER BROOM REMOVAL in Mount Tolmie Park. The top picture was taken in July 1995 and the bottom photo in February 1998.

Photos by Eric Redekop

Andrew Petter presented Eric Redekop with a Leadership Award "in recognition of his valuable contribution in the field of invasive plant management and control."

"There should be another 300 names on this," Eric said after accepting the award, then reminded the audience that the next Mount Tolmie Broom Bash would be July 5, and that the 4th Annual City-Wide Broom Bash would open on the Thanksgiving holiday weekend.

"In 1995, we opened the City-Wide Broom Bash program with 13 events in 8 locations over four weeks. Last year, the program had grown to 35 events in 19 locations over ten weeks," Eric said, adding, "This year, who knows how big it will be?"

Eric also recognized the continuing support of Saanich Parks for debris disposal services, the Garry Oak Meadow Preservation Society and President Katie Stewart for program publicity in the *Leaflet*, and the Habi-

tat Conservation Trust Fund for their operational support of the project on Mount Tolmie.

By the end of the event, it was clear to everyone involved that the Greenways concept is an incredibly exciting and energizing direction for the future of Victoria which in Andrew Petter's words, will "connect the city with the country, the human with the natural, and the past with the future."

Land Trust Alliance of B.C. workshop

The Land Trust Alliance of B.C. held both a weekend workshop and their first annual general meeting on March 20 and 21, the same weekend as the PCC Greenways/Trans Canada Trail Foundation workshops and in the same facilities — the recently renovated St. Ann's Academy and the Crystal Gardens.

Celebrating achievements

Friday evening, four conservancy groups celebrated their achievements. **Bruce Whittington** and **Andrew McDonald**, two directors of the Victoria Natural History Society's Habitat Acquisition Trust Foundation, showed slides of **Ayum Creek**, which was recently purchased over an 11-month period in partnership with the Society for the Protection of Ayum Creek in Sooke. Ayum Creek is a key component of the Sea to Sea Greenbelt vision, connecting the Sooke Hills to Sooke Basin.

Gary Holman, a director from the **Salt Spring Island Conservancy**, outlined the importance of last year's purchase of **Mill Farm** on the island, which is one piece of an overall vision that will ultimately see one quarter of the island protected under various partnerships including B.C. Parks, CRD Parks, Islands Trust, the local conservancy and others.

John Scull of **Cowichan Community Land Trust Society** says the trust

Continued on page 4

has put most of its efforts into land owner contact and volunteer stewardship.

It has focused on land in and around the Somenos-Chemainus wetlands and



riparian land near the 12-fish bearing streams.

A number of these landowners have indicated they would ultimately like to place a conservation covenant on their land. More recently CCLT has initiated a contact program focused on land owners owning oceanfront property.

The trust realized there was little published resource material available and has just published its own book, in conjunction with The Marine Ecological Station, called *Caring for Our Shores: a Handbook for Coastal Landowners in the Strait of Georgia*.

Turtle Island Earth Stewards, represented by **Tyhson Banighen**, is based in Salmon Arm. This organization is well-established in the conservation covenant business.

Taking a cue from the Cowichan Community Land Trust, however, they have changed their focus recently to landowner contact and local stewardship programs of individual lakes.

Vision and money

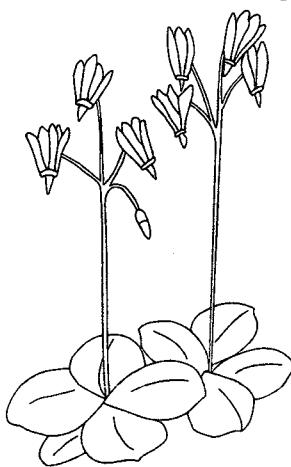
There were four workshops to select choose from on Saturday. I choose one

called **Creating A Land Preservation Strategy** and another on fund-raising tips and techniques.

In the afternoon there was a informal panel of four foundation funders, which was particularly useful for me, as the GOMPS board had applied to a foundation in December for funding and was turned down.

All funders said they advised applicants who received a "No" why their application didn't fit and what might be done to improve it if it might fall within the funding scope. Although deterred, we will revamp our application and apply again, with the input we have received from the program officer of our particular foundation choice.

Incidentally, the Cowichan Community Land Trust has applied for and received some \$200,000 in funding from various sources, including government work programs, over the last few years. John Scull says it takes a lot of work to go through the application process



and also to oversee the spending of that money.

The presenter of the fund-raising tips workshop, **Chris Herrman**, from the **Land Trust Alliance of Northern Washington**, told us that in the United States foundations gave over \$1.5 billion dollars last year to various organizations (environmental groups received less than 10 per cent of this).

Corporate donations were an additional \$6.1 billion. This money, how-



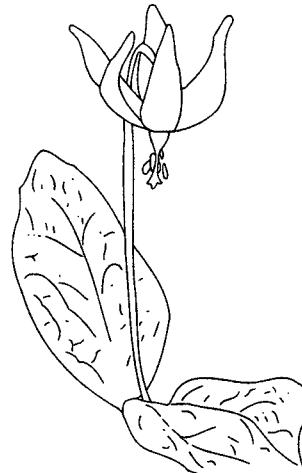
ever, was only 10 per cent of the money raised overall for community groups. Another six per cent came from bequests and the majority, 84 per cent, came from individuals.

Clearly the message was, don't expect foundations/corporate donors to be your major source of funds, particularly if your organization has paid staff. An organization must develop and keep its sponsors. Chris called it "friend-raising" as opposed to "fund-raising".

While GOMPS does not function as many trusts do, with not much focus on fund-raising thus far (Rogers Farm could change that!), some of Chris' ideas, such as strategic planning, are ones the board could undertake.

A lot of the advocacy work we do is too often in reaction to a development proposal and perhaps it's time for a different focus.

— Katie Stewart



Upcoming

DEMONSTRATION

Saturday, April 19, noon. Join neighbourhood activist Terry Anderson in his protest against the expansion of Pearkes Arena, which will encroach on forested Cuthbert Holmes Park and the Colquitz River Estuary.

NATURALISTS-LED WALK

Visit Mayne Island for a hike up **Mount Parke Regional Park, Saturday, April 19** from 1:30-3:30 p.m. Meet in the parking lot at the end of Montrose Road. Or take a seaside walk at 1 p.m. at **Witty's Lagoon in Metchosin**. Meet at the Tower Point parking lot off Olympic View Drive. For more information contact 478-3344.

WATER WORKSHOP

Several community groups are sponsoring a residential water resources conservation workshop at St. Aidan's Church on **Wednesday, April 22 at 7:30 p.m.** Focus of the workshop is how to conserve water at home, including in the hot dry summer months when water restrictions may be imposed. Bring your own mug. Sponsoring groups are the Mount Tolmie Conservancy Association, the Camosun Community Association, the North Henderson Residents' Association and Friends of Bowker Creek.

PHOTO CONTEST

"Springtime on Mount Tolmie". The Mount Tolmie Conservancy Association invites the public to send standard size photos (with their negatives) that fit this theme, to help celebrate Community Arts Week (May 3-10). Entries will be judged in two classes: youth (up to 18 years) and open (no age limit). Judges are Martin Segger (Curator, UVic Maltwood Gallery) and Dr. Carol Gibson Wood (Professor, UVic Faculty of Fine Art). Prizes are supplied by Prism Photography. Send entries by noon, April 27 to Mount Tolmie Conservancy Association, 3503 Camcrest Place, Victoria, B.C. V8P 4V6.

WILDFLOWER WALK

Saturday, April 25. Guided walk in the Garry oak woodlands at Government House. 10 a.m. - 2 p.m. Tours leave every half hour approximately from the lower parking lot. For more information contact Fran Spencer 387-2541.

EARTH WALK

Saturday, April 25. Noon-4 p.m. Leaves Centennial Square and goes to the Legislature lawns for speeches, music and displays.

WILDFLOWER WALK

Sundays, April 26 and May 17. Mount Tolmie Park, 1-3 p.m. Meet Eric Redekop at the summit viewpoint, rain or shine.

South Winchelsea Island update

The Land Conservancy is well on its way towards meeting the June 25 down payment. Since the March *Leaflet* came out, Robert Bateman and his wife Birgit have pledged \$5000 a year for the next five years, the Body Shop has donated \$5000 and the President of the University of Victoria has matched the

\$1500 donation of the graduating class. A TLC member has pledged \$1600 US for the next five years, which will be about \$12,600 Canadian.

Even Seadog Kayaking of Schooner Cove are donating 20 per cent of their proceeds for taking people to the

Winchelsea Island area. Friends of Ecological Reserves have organized a trip to the island for April 26.

Several people asked me who won the framed Robert Bateman print in TLC's spring raffle. Winner is Victorian environmental lawyer Ann Hillyer.



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

MAY 1998, Vol. 5, No. 5

Identity crisis: Do we really know what we want to rehabilitate?

On June 10, 1995, our society hosted the first Garry Oak Grassland Rehabilitation Symposium at Dunsmuir Lodge. Several presentations were given on topics related to the control of invasive exotic plants in particular, with an emphasis on Scotch broom. Our first presenter was Dr. Hans Roemer, who gave us the following paper to consider.

When we speak about rehabilitating

Garry oak grassland most of us will automatically equate this with restoring this ecosystem to its original, natural state. The assumption is made that we know with some accuracy what this original state was.

Unfortunately, this is not the case for much of this ecosystem. Another assumption is, as the word "restore" implies, that it is possible to return to this original state. Indications are that this,

too, is unrealistic.

A more appropriate title for this contribution would therefore be, "Where are we coming from and where are we going?" both in terms of species combination for the Garry oak grasslands.

Garry oak communities may be grouped into two broad complexes, one associated with the dry core area, and

Continued on page 2



FAWN LILIES (ERYTHRIONUM OREGONUM) in the graveyard at St. Mary The Virgin in Metchosin. A sign posted near the church says that no cutting of this area occurs until after the flowers have set their seed, which has resulted in a prolific spread of the lilies.

Photo by Katie Stewart

Garry Oak Leaflet 1

Identity crisis continued from page 1
another with the less dry periphery of their occurrence (cf. GOMPS, 1993; pp. 21-22). While we know reasonably well what the original species combination of the peripheral complex was, the same cannot be said about the core area complex.

The latter communities coincide with the urbanized area of southern Vancouver Island and their present herb-grass layers are now occupied by so many alien species that we do not know of which species the matrix was composed, from which the taller plants such as camas emerged.

There are now no mass-forming native grasses and herbs in the meadow component of these communities, especially among the smaller, annual species. A possible exception is *Festuca megalura* (*Vulpia myurus* ssp. *hirsuta*) which, however, is not a constant component.

James Douglas reported in 1842 that "several varieties of red clover grow in the rich, moist bottoms...." If we ignore the "moist bottoms" of this quote, these could be interpreted to be the native *Trifolium tridentatum*, *T. oliganthum* and *T. variegatum*, all annuals which may well have formed continuous stands, although they are now absent or only scattered in communities of the Garry oak core area.

Another open question with significance for both the past and the future composition of Garry oak communities pertains to the presence or absence of shrub layers. It is quite possible that high ungulate populations and the native peoples' practice of setting grass fires combined to gradually eliminate shrub layers.

Will these shrub layers, presumably dominated by *Symphoricarpos albus*, gradually re-invade the grassy areas, now that both fires and ungulate browsing have ceased?

Table 1 addresses the problem of non-native species in the herb-grass layers. It is arranged to show native

species above and non-native species below the horizontal dividing line. Higher constancies of both native and non-native species are shown closer to the line than lower constancies.

The herb-grass layers of eighteen plots (Roemer, 1972) are shown averaged in the first column. The other columns represent individual relevés, recorded in May 1995. Locations for these relevés were chosen subjectively to represent the highest densities of camas.

All plots are representative of the core area which is increasingly influenced by the urban environment of Greater Victoria. One great camas (*Camassia leichtlinii*) meadow and one common camas (*Camassia esculenta*) meadow is described by a relevé in each of the three localities.

While the average number of native species in the 1972 plots still exceeded the number of non-natives (13:11), the total number of native species in the entire table is now smaller than that of the non-native species (30:35).

Table 2 summarizes native/non-native counts for Table 1. The proportion of native species ranges from a disconcerting low of 24 percent to a high of 60 percent (for the only sample outside the urbanized area).

When cover values are used for the calculation, the proportion of native to non-native species is even lower.

Taking into account that the eighteen samples from 1972 already represented the most "urbanized" part of that data set, it is of even more concern that the percentages in comparable 1995 samples (#3 to #8) are still lower.

In addition, the sampled stands are likely among the least disturbed of the remaining communities as they were selected on the basis of showing optimal *Camassia* displays. In other words, most parts of these remaining Garry oak communities may have considerably fewer native plants.

There appear to be no significant dif-

ferences in the native/non-native proportions between Common camas and Great camas meadows, although more extensive sampling would be desirable to confirm this.

However, there are different kinds of grasses and herbs that tend to invade the two types of meadows. The shallow, exposed soils of Common camas meadows are more conducive to annuals, while the deeper, often sheltered and shaded sites of Great camas meadows are increasingly occupied by perennial and taller European meadow species.

Some non-native grasses, notably the small annuals, are relatively benign and allow most native plants to co-exist with them. Others, such as Orchard grass (*Dactylis glomerata*), are in the long run capable of smothering much of the native flora, including Camas and White fawn lily (*Erythronium* *oreganum*).

Concluding, it may be said that:

- Introduced species are now dominating the herb-grass layer of the Garry oak ecosystem in its dry and urbanized core area. The proportion of non-native species appears to have increased over the last two decades, and appears to be highest in the most fragmented and "urbanized" remnants of the ecosystem.
- There is considerable uncertainty as to which species formed the bulk of the herb-grass layer in the Garry oak communities of what is now the urban and suburban area of Victoria.
- The status of shrub layers, principally of Western snowberry, is equally uncertain and it appears possible in the absence of fire and grazing that shrubs may gradually invade the meadow component of Garry oak communities.
- Scotch broom invasions are not our only alien plant problem, though it is one of the worst. By introducing additional nitrogen, Scotch broom

Continued on page 4

Table 1
SPECIES COMBINATION OF CAMAS MEADOWS IN THE VICTORIA AREA

1970-sample (18 plots)								
	Woodsend	Knockan Hill -great	Christmas Hill -common	Christmas Hill -great	Beacon Hill -great	Knockan Hill -common	Beacon Hill -common	
	1	2	3	4	5	6	7	8
<i>Orthocarpus pusillus</i>	1							tiny owlclover
<i>Vicia americana</i>					1			American vetch
<i>Orobanche uniflora</i>								one-flowered cancerroot
<i>Cerastium arvense</i>	+							field chickweed
<i>Delphinium menziesii</i>	+							Menzies' larkspur
<i>Lotus micranthus</i>		1						small-flowered birdsfoot trefoil
<i>Triteleia hyacinthina</i>	+							fool's onion
<i>Perideridia gairdneri</i>						r		yampah
<i>Collomia parviflora</i>	+					r		blue-eyed Mary
<i>Poa canbyi</i>				+				Canby's bluegrass
<i>Fritillaria lanceolata</i>	+							chocolate lily
<i>Lomatium nudicaule</i>					r			bare-stem desert parsley
<i>Nemophila parviflora</i>	+							small-flowered nemophila
<i>Erythronium oregonum</i>	+							white fawn lily
<i>Lupinus bicolor</i>	2							bi-coloured lupine
<i>Luzula campestris</i>	+							field woodrush
<i>Sisyrinchium douglasii</i>			r					satinflower
<i>Trifolium oliganthum</i>	+							few-flowered clover
<i>Agrostis exarata</i>						3		spike bentgrass
<i>Brodiaea coronaria</i>			+			+		harvest brodiaea
<i>Montia perfoliata</i>	1			r				miner's lettuce
<i>Dodecatheon hendersonii</i>		1					r	broad-leaved shootingstar
<i>Achillea millefolium</i>	+						+	yarrow
<i>Elymus glaucus</i>	1	r	1					western wild-rye
<i>Lomatium utriculatum</i>	2	1			2	2	+	spring gold
<i>Ranunculus occidentalis</i>	+		1		+	+		western buttercup
<i>Bromus carinatus</i>	1		+	2	2			California brome
<i>Sanicula crassicaulis</i>	+	+	1	2	r			Pacific sanicle
<i>Camassia leichtlinii</i>	3	+	3	3	5			great camas
<i>Camassia esculenta</i>	4	1	3		+	4	4	common camas
<i>Festuca bromoides</i>	1	4	5	1	3	1	5	six-weeks fescue
<i>Vicia sativa</i>	+	3	3	2	+	1	1	common vetch
<i>Bromus hordeaceus</i>	+	2	1	2	4	4	2	soft brome
<i>Bromus sterilis</i>	3	2	5	4		1		barren brome
<i>Geranium molle</i>	1	1	1	2		+		dovefoot geranium
<i>Galium aparine</i>	2		1	3		+		cleavers
<i>Vicia hirsuta</i>	+	+	+	2				hairy vetch
<i>Bromus rigidus</i>	2	1				+	2	ripgut
<i>Anthoxanthum odoratum</i>		2			3	3	3	vernalgrass
<i>Hypochaeris radicata</i>			2		1	1	2	hairy cat's ear
<i>Cytisus scoparius</i>			3	1	3	+		Scotch broom (seedlings)
<i>Poa pratensis</i>	2			3	3			Kentucky bluegrass
<i>Stellaria media</i>	+		+	2				chickweed
<i>Rumex acetosella</i>			3			1	+	sheep sorrel
<i>Veronica arvensis</i>	r					1		common speedwell
<i>Dactylis glomerata</i>				2	4			orchard grass
<i>Cynosurus echinatus</i>	+					+		hedgehog dogtail
<i>Holcus lanatus</i>				+	+			Yorkshire fog
<i>Lolium perenne</i>					2	2		perennial ryegrass
<i>Medicago lupulina</i>					3	1		black medic
<i>Plantago lanceolata</i>					2	1		ribwort plantain
<i>Poa bulbosa</i>					1	2		bulbous bluegrass
<i>Festuca megalura</i>					2	2		hairy rat-tail fescue

Table 1 continued

Cynosurus cristatus		3	3	crested dogtail
Bromus tectorum				cheatgrass
Teesdalia nudicaulis	2			shepherd's cress
Agropyron repens		3		quackgrass
Aira praecox	2			early hairgrass
Aira caryophyllea			2	silver hairgrass
Moenchia erecta		+		upright moenchia
Bellis perennis		+		English daisy
Agrostis gigantea		1		giant bentgrass
Trifolium pratense		1		red clover
Lathyrus latifolius		r		broad-leaved peavine
Daucus carota		+		wild carrot

Identity crisis continued from page 2

- may allow secondary invasion of nitrophilous species such as Orchard grass.
- A return to the original species combination is highly unlikely. We must therefore be prepared to accept compromises such as oak-camas or oak-fawn lily-shooting star, combined with the non-native element. Examples of such combinations maintained over long periods are available in the region.
- Experimentation with different management and restoration methods including reintroductions must

be encouraged.

- We must strive to maintain Garry oak reserves as large as possible and as distant as possible from the urbanized areas which are the ultimate sources of disturbance and non-native species.
- Systematic monitoring of further shifts in native/non-native species combinations should be established.

References:

Douglas, J. (1842). Report to McLaughlin, July 12, 1842. Cited in: Founding of Victoria, *The Beaver*,

Outfit 273, March 1943, pp. 4-9.

Hebda, R.J. and Aitken, Fran, Eds. (1993). *Proceedings of the Garry Oak Meadow Colloquium*, Victoria: Garry Oak Meadow Preservation Society.

Roemer, H.L. (1972). *Forest vegetation and environments on the Saanich Peninsula*, Vancouver Island. Unpublished PhD dissertation, University of Victoria.

Table 2 REMAINING NATIVE SPECIES
IN CAMAS MEADOWS OF THE VICTORIA AREA

Meadow samples	total no. of species	no. of native species	% native species	% cover by native species
1970 sample (18 plots) ¹	24 (avg.)	13	54%	36%
Woodsend Drive	20	12	60%	41%
Knockan Hill - great c.	14	6	43%	25%
Christmas Hill - common c.	9	4	44%	18%
Beacon Hill - great c.	21	8	38%	27%
Christmas Hill - great c.	16	5	31%	31%
Knockan Hill - common c.	20	6	30%	30%
Beacon Hill - common c.	17	4	24%	27%

¹ averages representing revegetation set #1 in Roemer, H.L. (1972) *Forest Vegetation and Environments of the Saanich Peninsula*; tree cover omitted.

Helping the Land Heal: Ecological Restoration in British Columbia

by Brian Egan

Reprinted from the Spring 1998 issue of *menziesia*, newsletter of the NPSBC Native Plant Society of British Columbia

Thanks to a generous grant from Forest Renewal B.C.'s Research Program, British Columbia's first major conference on ecological restoration will be held in Victoria this fall.

Organized by the B.C. Environmental Network Educational Foundation and supported by the Restoration of Natural Systems Program of the University of Victoria, the overall objective of the Helping the Land Heal conference is to bring together people from a broad spectrum of interests and perspectives to share information on past and current restoration efforts as well as to discuss the future role of ecological restoration in the sustainable management of the province's natural resources.

The conference will take place **Thursday, November 5 to Saturday, November 7, 1998** at the Victoria Conference Centre, with field trips being planned for the days prior to and following the conference.

The conference comes at an opportune time as interest in restoration is rising rapidly in British Columbia, due in large part to the establishment of Forest Renewal B.C.'s Watershed Restoration Program.

Over the past two years, the crown corporation has spent over \$100 million on the restoration of damaged ecosystems through this program. Despite the increasing investment and interest, broad understanding of the meaning of restoration remains rudimentary.

Also, restoration practitioners and policy-makers face a steep learning curve as they seek to expand their knowledge of appropriate restoration

techniques as well as ways to engage public participation in the restoration decision-making process.

Helping the Land Heal is designed to increase understanding and support for the practice of ecological restoration in environmental management and protection but also, by bringing together restoration practitioners from across the province and from other jurisdictions, it will facilitate the sharing of information and knowledge between people actively working to restore damaged ecosystems.

The conference will include plenary presentations by key restoration experts, workshops on specific restoration issues, roundtable discussions on emerging issues, poster sessions focused on technical and topical restoration issues, and field trips to visit local and regional restoration sites.

The plenary sessions will focus on three major themes:

- 1) perspectives and meanings of restoration;
- 2) taking stock: the current state of ecological restoration in British Columbia; and
- 3) moving ahead: advancing the cause and practice of restoration in British Columbia.

Workshops will include invited and submitted presentations on a wide range of topics, including many that will be of keen interest to those who work with native plants.

Potential workshops include:

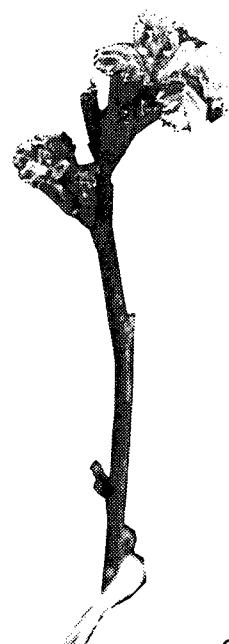
- Restoration and global atmospheric change
- Community approaches to restoration
- Developing partnerships for restoration
- Career and training opportunities for restoration

- Restoration, youth and education
- First Nation perspectives on restoration
- The political economy of restoration
- Restoration economics
- Forest restoration
- Enhanced silviculture and restoration
- Grassland restoration
- The role of fire in restoration
- Urban and near-urban restoration
- Watershed, riparian and wetland restoration
- Fish habitat restoration
- Wildlife habitat restoration
- Restoration of endangered species
- Soil restoration

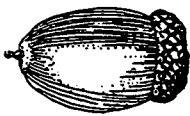
Proposals for oral presentations (papers) and/or posters which relate to any of the plenary and workshop topics described above are welcome.

Please submit your proposal, including author's name, affiliation, contact and information and a 250-word abstract of your paper by June 1 to Brian Egan, Project Coordinator, 2-1708 Lillian Road, Victoria, B.C. V8S 1K9. Telephone (250) 598-9056, fax (250) 598-9076.

E-mail: began@islandnet.com



SEEN ON
MOUNT
WELLS —
Young Garry
oak seedling
with tender
new leaves.



IN A NUTSHELL: NOTES FROM THE PRESIDENT

Four of our directors, along with The Land Conservancy Executive Director Bill Turner, met with MLA and former Environment Minister **Moe Sihota** on April 16. Hal Gibbard and Mike Meagher prepared a background on the Garry oak ecosystem and Sharron Waite and I talked about the lack of protection. We mentioned that although the Municipal Act gives municipalities certain conservation tools, such as tree preservation bylaws and development permit guidelines, few municipalities are utilizing them.

Mr. Sihota replied that since our political system is a democracy, the provincial government can't force municipalities to use their discretionary powers and that there was already a lot of criticism of too much provincial interference with municipalities.

He thought that most of the local mayors were aware of the need in general for habitat protection and when questioned about Langford Mayor Stew Young, called him a "cowboy" and said that he (Moe) had made his views well known. I pointed out to him that unfortunately most of the remaining Garry oak habitat in the Capital Region was in Young's municipality.

Bill Turner, unfortunately, was not left any time to talk about South Winchelsea Island and the possibility of some funding for it coming from the Pacific Marine Heritage Legacy. He gave Mr. Sihota a package on TLC and suggested he might be interested in joining, which took Mr. Sihota aback.

The meeting was the result of a letter sent by Moe to me in December in which he wrote, "I must say, I admire your persistence and concur with many of your concerns" and invited us to discuss "these matters" with him.

After phoning every couple of weeks since the beginning of January to get an appointment, I was quite disappointed in the meeting. We were told

about some of the NDP's accomplishments and Mr. Sihota talked about how positive our work was and that we raising public awareness.

I left him a copy of Calvin Sandborn's book, *Green Space and Growth: Conserving Natural Areas in B.C. Communities*, which has many good ideas that the government could utilize if it were inclined. But I said to the other directors afterwards, "What was the purpose of this meeting? You mean I came here just to hear Moe give us a pep talk?"



This newsletter is coming very late to you this month. I was back east for two weeks then away the following weekend for the Washington Native Plant Society Study Weekend.

The spring wildflowers were early this year in Ontario according to what I was told. I had fun trying to identify some of them. In two places — Second Marsh near Oshawa and Lion's Head Provincial Nature Reserve on the Bruce Peninsula — I saw thick masses of trout lilies (*Erythronium americanum*) through the woods (pic-



tured below) and lesser amounts of white trillium (*Trillium grandiflorum*). I saw one red trillium plant (*T. erectum*) in MacGregor Point Provincial Park on Lake Huron. It was wonderful to see such vast amounts of wildflowers.

In Toronto I had coffee with Canadian Wildflower Society President **Lorraine Johnson** and *Wildflower* magazine Pacific Northwest field editor (and GOMPS member) **Jim Rainer** at **Jim Hodgins'** house.

Jim is the long-time editor of *Wildflower* and a native plant garden enthusiast and has converted both his front and back yards to native plant gardens. In his neighbourhood of older townhouses and duplexes, many of the small front yards have been converted to gardens although few use native plants. Still, it was a pleasure to walk by garden after garden instead of lawn.

During our get together, we all commiserated about our respective governments. I asked about the Niagara Escarpment Commission which I had read about in Calvin Sandborn's book, *Green Space and Growth*, mentioned above and in the October 1996 *Leaflet*.

Calvin wrote, "Some regions of British Columbia are so environmentally critical that special measures are called for to protect their natural values ... for example, the unique Canadian desert and grassland habitats of the South Okanagan and the Garry oak woodlands of southern Vancouver Island are two of Canada's four most endangered ecosystems. These two areas, and all or part of the coastal zone, might merit designation as 'critical areas' in which the province would provide special protection of natural values by means of an Islands Trust-like model."

Calvin gives several examples of models elsewhere, including one in Ontario.

"The Ontario government appointed a commission to create a land use plan to protect natural values along the 725 km length of the Niagara Escarpment. Approved by government in 1985, the plan takes precedence over municipal plans; but once municipal plans are consistent with the escarpment plan, municipalities may resume control of escarpment planning."

According to a brochure we picked up on the escarpment published in 1993, "in 1990, UNESCO (the United Nations Educational, Scientific and Cultural Organization) named the Niagara Escarpment a World Biosphere Reserve — an internationally recognized ecosystem."

"Biosphere reserves demonstrate a balance between conservation and development. A reserve must have one or more protected core areas that conserve significant ecological features. Buffer zones around the core may be used in ways that do not affect this protected area.

The brochure says that the Niagara Escarpment Plan is "Canada's first large scale environmental land-use plan" and is a "successful and innovative example of environmental land-use planning."

Not any more. Mike Harris has gutted the commission's powers, although the commission still exists and planning is once again back in the hands of local townships etc., to the dismay of Ontario environmentalists. I told the Toronto folks that we were not having much luck here either trying to get special protection for the Garry oak ecosystem.



Eric Redekop has received a bit of a blow for his five-year Garry oak meadow invasive plant removal project on Mount Tolmie.

He had applied for his third year of funding from the Habitat Conservation Trust Fund (HCTF) but was turned down.

According to the fiscal year-end report Eric submitted to the HCTF in March, this summer he anticipated clearing broom from areas west of Mayfair Drive, which would result in approximately 12 hectares cleared.

The GOMPS Board views the stopping of funding part way through this project with dismay.

Not only are there still major areas

to be cleared, it is necessary to go over areas already cleared to do what Eric calls "secondary treatments", i.e. pulling up broom sprouts before they get to the seeding stage, removing resprouted broom stumps and removing other invasive exotic plants such as English ivy and Himalayan blackberry.

GOMPS is sending a letter to HCTF asking for reconsideration of its decision. Eric's project is modest in scale compared to some of the funded projects and we'd like to find out the rationale for loss of funding.

At the Land Trust Alliance workshop I attended in March, B.C. Environment Ministry employee Rod Silver spoke about the HCTF. He said there were \$15 million of project applications for \$5 million in funding this year, with the bulk of them (75 per cent) coming from government branches such as Fish and Wildlife.

Last year HCTF spent over \$6.6 million, including spending over \$1 million on buying ecologically sensitive habitat.

Fund revenue is generated from licence surcharges on hunting, angling and trapping.

No PMHL funding for South Winchelsea Island

This letter is a reply to a letter I sent to Sheila Copps asking that Pacific Marine Heritage Legacy funding be available to help with the purchase of South Winchelsea Island — K.S.

The Honourable Sheila Copps, Minister of Canadian Heritage, has forwarded to the Honourable Andy Mitchell, Secretary of State (Parks), your letter of February 27, 1998, requesting that Pacific Marine Heritage Legacy (PMHL) funding be provided to support the purchase of South Winchelsea Island. I am replying on behalf of Mr. Mitchell.

The PMHL is a five-year co-opera-

tive program between Canada and British Columbia with the expressed purpose of creating an expanded and integrated network of coastal and marine protected areas along Canada's Pacific coast, with specific emphasis at this time on the southern Gulf Islands.

As part of this program, the two governments have each agreed to invest \$30 million, for a total of \$60 million for acquiring lands from private owners on a willing seller-willing buyer basis. The Winchelsea and Ballenas islands are included in the acquisition area for the PMHL.

The PMHL Management Committee

recognizes the high conservation values on South Winchelsea and the other islands in the archipelago, and the potential to create a significant new protected area on the east coast of Vancouver Island. The Committee also recognizes the continued necessity to work in partnership with organizations such as yours to maximize the benefits of our collective acquisition efforts.

Unfortunately, owing to current *provincial* [italics K.S.] funding constraints, the PMHL must decline becoming a funding partner in the acquisition of South Winchelsea Island. In recognition, however, of the high con-

PMHL continued on page 8

servation and recreation values in this archipelago, British Columbia has agreed to investigate the implications and feasibility of protecting, in some form, the 13 provincial Crown islands and numerous islets as a contribution to this conservation effort.

Should the funding situation for the PMHL become more favourable, the Management Committee will reconsider support for the purchase of South Winchelsea Island. In the interim, you will be kept informed of the results of the evaluation of the British Columbia Crown islands and islets as a possible new protected area. In light of its interest in this matter, I have taken the liberty of forwarding a copy of your letter to the Committee.

Jim Doughty, Executive Assistant

Upcoming events on Mount Tolmie

June 7 and 28 — Wildflower walks, 1 - 3 p.m. Meet Eric at the summit viewpoint, rain or shine.

July 5, 12, 19 and 26 — Broom bashes, 9 a.m. - 3 p.m. Follow pink flagging tape from Mayfair Drive to work areas. Call Eric for more information at 595-7270.



For a virtual walk in the park instead of a real one, visit the Mount Tolmie Conservancy Association's web site <http://www.pacificcoast.net/~mounttolmie>

Click on "Calendar", then on "Wildflower Walk" and finally on "Take a Virtual Walk in the Park" and you can see some of the 36 pictures that Eric Redekop posted on this site in March 1998. You can look at shootingstars, white fawn lilies, spring-gold, woodland star, blue-eyed-Mary or broad-leaved stonecrop and check out various vistas and trails.

You can also read the Conservancy's newsletters on-line.

ONGOING

PUBLIC RELATIONS

GOMPS DISPLAYS: Phone 386-4792 for possible locations

FUND-RAISING COMMITTEE

As our main fund-raiser, GOMPS has for sale full colour posters of a Garry oak and a meadow of camas/buttercups under a bright spring sky. We also have wildflower placemats, wildflower posters and the *Garry Oak Meadow Colloquium Proceedings* for sale. Call Tom Gillespie at 361-1694.

PRESERVATION/RESTORATION COMMITTEE

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RESEARCH COMMITTEE

PUBLIC CONSERVATION ASSISTANCE FUND GARRY OAK INVENTORY PROJECT. Project coordinator is Paul Gareau, 592-9089.

NEWSLETTER

If you have any contributions — photos, art work, articles, letters of agreement or disagreement or anything else you'd like to contribute, contact Katie Stewart at 386-4792 or mail to address below.

GARRY OAK MEADOW PRESERVATION SOCIETY
c/o A-954 QUEENS AVENUE, VICTORIA, B.C. V8T 1M6

DIRECTORS AND OFFICERS OF THE SOCIETY

President and Public Relations Chair	Katie Stewart	386-4792
	e-mail camassia@bc.sympatico.ca	
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Director	Hal Gibbard	477-2986
Director	Michael Meagher	727-7675

MEMBERSHIPS AND DONATIONS

NAME _____

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MEMBERSHIP DUES:

Donation

Individual \$15 Family \$20

Please send more information about:

Youth and Associate \$6 (no newsletter)

Local sources for Garry oak meadow plants

Gift memberships, send receipt to:

Garry Oak Inventory Project

Operation Clean Sweep (broom removal)

Growing, planting Garry oaks



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

JUNE/JULY 1998, Vol 5, No 6

South Puget Sound prairies visit

By Katie Stewart

On the May long weekend, GOMPS members Linda Beare, John Olafson, Linda Grimm, Karen Uldall-Ekman, Dierdre Gotto and I travelled to Olympia, Washington to attend the Washington Native Plant Society Study Weekend.

The annual study weekends take place in various locations around the

state. This year's field trips covered a variety of habitats including grasslands, oak woodlands, conifer savannahs, wetlands, riparian areas and remnant old growth stands.

At the time of registration in January, we had to choose from 18 field trips over two days, including Botany by Bicycle and Black River Canoe Trip which also featured bird watching.

Four of us chose the same field trips based on a recommendation from a Washington State university student I had met in December who knew of our interest in Garry oak habitat and restoration.

She suggested that we visit Fort Lewis Prairies and Glacial Heritage Prairie which are normally off-limits

Prairies continued on page 2



TOUR GUIDE GLEN BUSCHMANN leads participants in the Washington Native Plant Society study weekend on a tour of Glacial Heritage Preserve, a South Puget Sound prairie located in Thurston County. Much of the broom on site still has to be removed.

Photos by Katie Stewart

Garry Oak Leaflet 1

Prairies continued from page 1

to the public. John and Linda Beare were on the latter trip with us on Sunday and chose to go on the Skokomish Prairie Restoration field trip on Saturday.

On the Friday evening, Roberta Davenport, who works for the Washington Department of Natural Resources' Natural Areas Program, gave a slide presentation on "Restoration of Puget Prairies".

At the 35-acre Rocky Prairie Reserve, which is the best site for the endangered golden Indian paintbrush (*Castilleja levisecta*), broom has been hand-removed for the last 11 years. Eighty-five large Douglas-fir were logged and removed by helicopter.

Seed was collected for Idaho fescue (*Festuca idahoensis*) and 100,000 nursery grown plugs were transplanted for spring and fall plantings in 1996 and 1997.

Ms Davenport also described the broom burning project at Mima Mounds and its results. Her talk was followed by Patrick Dunn of The Nature Conservancy on "Prairie Restoration Actions Undertaken by the Nature Conservancy."



DELTOID BALSAMROOT (*Balsamorhiza deltoidea*) in bloom at Fort Lewis prairie.

© Garry Oak Leaflet

What are the prairies?

"The prairies of the South Puget Sound region are open, diverse habitats within the broader landscape of the closed, coniferous forests of the Puget Lowlands. Prairie grasslands, oak woodlands, and Douglas-fir and ponderosa pine savannahs are all integral parts of the native prairie landscape.

"In addition, the juxtaposition of these prairie communities with wetlands and coniferous forest creates unique habitats found nowhere else in Washington.

"This landscape contains many rare and sensitive plant and animal species. Two of Washington's federally listed plants occur with the landscape: golden Indian paintbrush (*Castilleja levisecta*) in prairie grasslands and water howellia (*Howellia aquatilis*) in wetlands.

"Several additional state-listed plants occur in the prairie landscape, most notably white-topped aster (*Aster curtus*) in grasslands, and small-flowered trillium (*Trillium parviflorum*) in woodlands.

"Sensitive animals of the prairie include the mazma pocket gopher

(*Thomomys mazama*), western gray squirrel (*Sciurus griseus*), and a suite of prairie-dependent butterflies; all of these animals are state listed or are candidates for listing.

"Oregon white oak (*Quercus garryana*) woodlands in the South Puget Sound have been identified as sensitive habitat of state-wide importance for neotropical migrant birds.

"In addition, several species of plants and animals are now locally extinct from the prairie landscape. These include the rose checker-mallow (*Sidalcea malviflora* var. *virgata*), Lewis woodpecker (*Melanerpes lewis*) and racer snake (*Coluber constrictor*).

"The decline or local extinction of these species has been caused or aggravated by the destruction and fragmentation of prairie habitat. The prairie landscape in South Puget Sound once extended from just south of Tacoma to beyond Oakville along the Chehahllis River.

"In 1995 less than three percent of that remained prairie. Today that figure continues to decline due to outright destruction of habitat, while much of the remaining habitat is being degraded by alteration of ecological processes, the introduction of invasive plant species and continued disturbance by excessive human usage."¹

Sound familiar?

Fort Lewis Prairies

Fort Lewis (77,000+ acres) was established in 1916 and contains the largest contiguous native prairies in Washington. Much of the original prairie has been altered; one researcher estimates 2130 acres meet the criteria of "intact prairie".

Since 1993, The Nature Conservancy has been working with the U.S. Army restoring and maintaining prairie habitat at Fort Lewis. We visited sites where broom had and had not been removed and another site where Idaho fescue had been planted with great success.



GARRY OAKS in Black River riparian area in Glacial Heritage Preserve.

"Under pristine conditions, the bunchgrass Idaho fescue (*Festuca idahoensis*) dominates these communities with up to 70 per cent cover."²

I was curious about the plant composition of the prairie ecosystem, as I knew that some of the plants in our Garry oak ecosystems (at the northern end of their range) were also found in the prairies.

I saw many deltoid (Puget) balsamroot (*Balsamorhiza deltoidea*) plants in bloom. This species, while rated "G5 globally (common, typically widespread and abundant)"³ is listed S2 by the Conservation Data Centre in British Columbia ("imperilled provincially because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. Typically 6 to 20 occurrences or few remaining individuals [1,000 to 3,000].")⁴

I had only ever seen deltoid balsamroot once before in the Mount Tzouhalem Ecological Reserve and the

plants there were not abundant like at Fort Lewis. The plants were, of course, quite spectacular and were featured on the T-shirts sold by Friends of Puget Prairies as a fund-raiser during the study weekend.

Other plants I saw for the first time were prairie lupin (*Lupinus lepidus*), pine lupine (*Lupinus albicaulis*), narrow-leaved desert parsley (*lomatium triternatum*), graceful cinquefoil (*Potentilla gracilis*), cutleaf microseris (*microseris laciniata*), houndstongue hawkweed (*Heiracium cynoglossoides*), showy fleabane (*Erigeron speciosus*), spike-like goldenrod (*Solidago spathulata*) and rosy pussytoes (*Antennaria microphylla*).

Also in bloom were many early blue violets (*Viola adunca*), the occasional blue-eyed grass (*Sisyrinchium angustifolium*), a wonderful patch of harsh paintbrush (*Castilleja hispida*), bicoloured lupins (*Lupinus bicolor*), woolly sunflowers (*Eriophyllum lanatum*) and common camas (*Camassia quamash*). We were surprised at how much lighter in colour the camas was than the camas here, almost a light blue.

I noticed quite a few yellow montane violets (*Viola praemorsa*). I mentioned to one fellow (he had done the Idaho

fescue plots) that *Viola praemorsa* was red-listed in British Columbia and he promptly stomped on one plant just to see my reaction, I think.

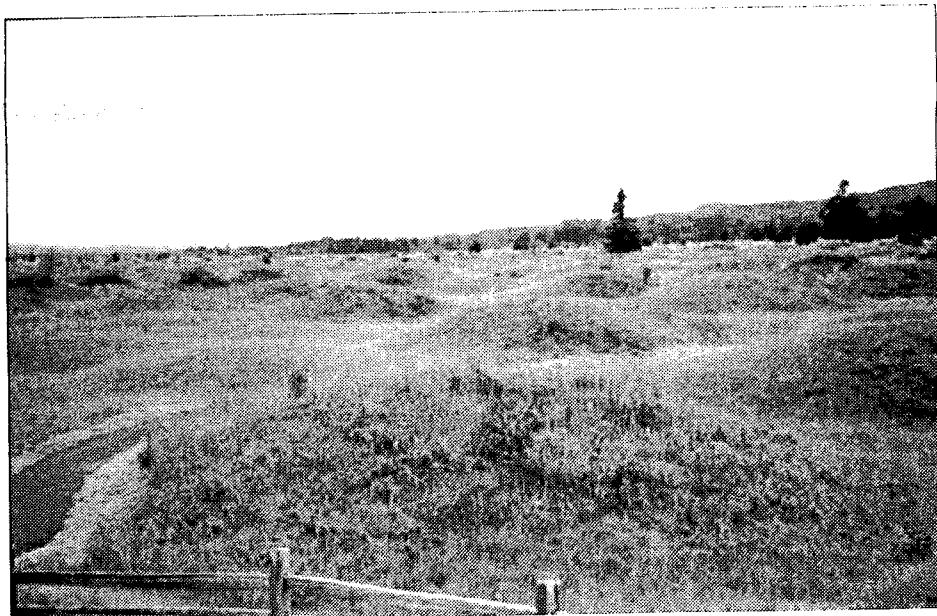
Another surprise was the number of people who used Hitchcock & Cronquist's *Flora of the Pacific Northwest* as their field guide. Some of the copies were quite battered. One man, whose business card identified him as a "Consultant in Ecological Restoration" and "Supplier of Native Plant Seeds" told me he had the five-volume set at home.

Along with the amateur naturalists on the Fort Lewis field trip were a few botanists, including a woman who specialized in grasses.

She identified a number of grasses for us, including troublesome invasives such as colonial bentgrass (*Agrostis capillaris*), velvet grass (*Holcus lanatus*), Kentucky bluegrass (*Poa pratensis*), sweet vernalgrass (*Anthoxanthum odoratum*) and orchard grass (*Dactylis glomerata*); some form dense sods which prevent the prairie forbs from growing.

Another problematic invasive plant seen in abundance, which we also have in our meadows, is hairy cat's ear (*Hypochaeris radicata*).

Prairies continued on page 4



MIMA MOUNDS Natural Area Preserve, Thurston County, Wash.

Mima Mounds

Saturday, May 16 was also the third annual Prairie Appreciation Day, which is similar to our Camas Day in Beacon Hill Park. At several local natural parks field trips were offered for birding, Garry oak woodlands, wildflowers, native plants, geology and butterfly identification.

We had enough time after our Saturday field trip to find our way to Mima Mounds Natural Area Preserve in Thurston County, but we were too late for the guided tour and displays.

Mima Mounds is a remarkable 444-acre National Natural Landmark, a terrain of unusual mounds of even height. Their geological origin is uncertain and they once stretched over the county where they are located. The mounds also contain the native grassland ecosystem, so we wandered around the paths noticing species' combinations. One of the dominant species was *viola adunca*.

It is an important site for *aster curtus*, a species ranked critically imperilled in British Columbia, threatened in Or-

egon and sensitive in Washington.

Mima Mounds receives prescribed burns for controlling broom.

Black Hills Mima Glacial Heritage Preserve

Commonly called Glacial Heritage Prairie, this 1100-acre preserve is a mix of prairie, lodgepole pine and Douglas-fir forest, oak woodlands and a riparian zone.

Our Sunday field trip, led by two restorationists (one employed by The Nature Conservancy) was even more interesting to me. The topography, for the most part, was mounded prairie.

The preserve is owned by Thurston County and is its only natural "park". The Nature Conservancy is trying to manage the land with a combination of mowing and burning but is not always in sync with county officials. For example, permission to burn at the appropriate time in early fall, was not forthcoming in time. Compounding the problem was obtaining the required equipment from Fort Lewis: 4-wheel drive fire trucks and tankers.

In addition, while Washington State has paid for the burns at Mima Mounds, there aren't the same county financial resources, so The Nature Conservancy is trying to get volunteer burnings done by the army, whose equipment is busy at Fort Lewis.

Broom is an enormous problem. In some areas broom has been machine-mowed, using a medium size tractor equipped with a five-foot "brush hog" and hand-mowed with a skill saw equipped with a blade. The mower can mow 25 acres per day, but the going can be tough. The Conservancy prefers to burn after mowing; this combination seems better at keeping broom under control, provided burning can be done on schedule. Hand-pulling broom is not an option because of the amount of broom to be controlled.

Over 40 acres of Douglas-fir have been encroaching into the prairie in the absence of fire. Twenty-year-old trees or younger are being removed; this work is largely being funded by the Fish and Wildlife service. Native plantings fill in the areas where the trees are cut. Another 12 acres of lodgepole pine (*Pinus contorta*) has also been expanding in the absence of fire. Other invasives are the grasses noted earlier in this article.

The flora was similar to what we had seen on our Saturday field trip at Fort Lewis on the prairies, although the deltoid balsamroot plants were not as abundant. Garry oaks, however, grew in a riparian area, along the Black River. Some of the understory vegetation I noted as we walked along were tiger lilies (*Lilium columbianum*), inside-out flower (*Vancouveria hexandra*), Oregon ash (*Fraxinus latifolia*), red osier dogwood (*Cornus stolonifera*), cascara



PRAIRIE LUPIN (*Lupinus lepidus*) at Fort Lewis prairie.

(*Rhamnus purshiana*), Indian plum (*Oemleria cerasiformis*), snowberry (*Symporicarpus albus*) and ocean spray (*Holodiscus discolor*). Also growing there, but not seen, are small-flowered trillium (*Trillium parviflorum*), another rare plant in the state.

We noted young oak seedlings naturally growing in the long grasses which formed a distinct band along the riparian area. The Nature Conservancy planted oak seedlings in one area, quite widely spaced. Each was enclosed by chicken wire supported by rebar, with black screen attached on one side for shade.

Literature cited

1. Prairie Habitat Restoration and Maintenance on Fort Lewis and within the South Puget Sound Prairie Landscape by Patrick Dunn, Prairie Restoration Ecologist, The Nature Conservancy of Washington, February, 1988. (Page 3)
2. Ibid (Page 9)
3. B.C. Conservation Data Centre: Global Rank Definitions and Provincial Rank Definitions
4. Ibid



PARTICIPANTS WALK through a field with young Garry oak seedlings surrounded by shaded chicken wire fencing.

BiblioFile

After listening to Patrick Dunn speak at the Washington Native Plant Society study weekend, I purchased a book that The Nature Conservancy of Washington printed in 1997, called *Ecology and Conservation of the South Puget Sound Prairie Landscape*, edited by Mr. Dunn and Kern Ewing.

This book is a collection of 28 papers presented at a conference held November 1996 about the prairie landscape. The conference was an initial project after the formation of the South Puget Sound Prairie Landscape Working Group — a group of scientists, land managers and land planners who work together to share information about prairies.

Topics include historic conditions of vegetation and land-use; rare species; natural communities, ecological processes and invasive species; restoration techniques and protection actions.

Of particular interest to me were individuals chapters on the rare vascular plants of the South Puget Sound landscape, *Aster curtus* and *Castilleja levisecta*; native vegetation; fire effects on prairie vegetation at Fort Lewis; butterflies; herpetofauna; plant community diversity and invasion of the exotic shrub *Cytisus scoparius* (Scotch broom); weeds; germination requirements of 32 native Washington plant species; Rocky Prairie restoration and native plant propagation project; survival and growth of planted *Festuca idahoensis* in prairie restoration at Fort Lewis; vegetative response to fall prescribed burning within *Festuca idahoensis*-dominated prairie, Mima Mounds Natural Preserve; restoration goals for Oregon white oak (*Quercus garryana*) habitats in the South Puget Sound region and restoration planting of Oregon white oak seedlings in Western Washington.

Here's a quote regarding the history and distribution of *Castilleja levisecta* (page 102): "Historically, *C. levisecta* had been reported from over 30 sites in the Puget Trough region of Western Washington and British Columbia, and had occurred as far south as the Willamette Valley in Oregon (Hitchcock and Cronquist 1973).

"Early collections include one taken near Mill Plain, Washington in 1800 and Victoria, B.C. in 1975. Today *C. levisecta* is believed to be extinct in Oregon. Twelve extant populations ranging in size from 5 to over 10,000 individuals occur in Thurston, Island and San Juan counties in Washington and near Victoria in British Columbia.

"The single largest and presumably healthiest population occurs within the South Puget Sound prairie landscape within the boundaries of Rocky Prairie Natural Preserve. The approximately 15-hectare preserve is managed by the Washington State Department of Natural Resources."

Ecology continued on page 6

In the chapter on *Quercus garryana*, authors Ian Hanna and Patrick Dunn describe Garry oak habitats as consisting of three distinct types, with an additional four types resulting from modifications to the landscape after European settlement.

Originally covering 40 per cent of the South Puget Sound region, oak woodlands have declined severely. The three main types include "oak savannahs and woodlands, riparian oak woodlands and wetland oaks. Being dependent on a short fire interval, savannahs and open woodlands (5-100 stems per hectare) have become the most rare oak habitat type." (page 231)

The authors make the point that what they call priority species [rare] have very different requirements. "*Aster curtus* requires open, xeric habitat with at least 50 per cent native bunchgrass flora, while *Trillium parviflorum* requires closed, mesic habitat with a

well-developed shrub layer." (page 231)

The four non-historic oak habitats are mixed oak/woodland conifer, dense oak woodland, range oak woodland and clumped oak.

The chapter on oak seedlings describes experiments with planted seedlings that were acorn-grown in a nursery with or/without shade at the nursery and salvaged seedlings which were planted with or without irrigation or with or without shade. In another experiment acorns were sowed directly in the field with no irrigation or shade.

Another chapter detailed the ecology of the western gray squirrel (*Sciurus griseus*), which requires both oak and conifer habitat. The population has declined as a result of loss of habitat and the invasion of the eastern gray squirrel (*Sciurus carolinensis*) among many factors.

As a side note, the eastern gray squirrel has also caused problems for our

native red squirrel (*Tamiasciurus hudsonicus*) on Vancouver Island. As a result of the escapement of three eastern gray squirrels (obtained from Ontario in 1996) from a game farm in Metchosin soon after their acquisition, this non-native has spread throughout the Saanich Peninsula and displaced the red squirrel. Last year, a proposal was submitted to the Habitat Conservation Trust Fund for a study on the effects and management of the introduced gray squirrel on the native species of Vancouver Island, with a focus on the threatened Garry oak ecosystem. It was turned down.

Ecology and Conservation of the South Puget Sound Prairie Landscape, while technical in nature, might be of interest to some GOMPS members. If you would like to borrow my copy, please phone. If you're interested in obtaining your own copy, write to The Nature Conservancy of Washington, 217 Pine St., Suite 1100, Seattle, WA 98101 or call (206) 343-4344.

— Katie Stewart

Internet sites of interest

by Katie Stewart

I use the Internet often. Besides personal communication, I subscribe to Dr. Adolf Ceska's **Botanical Electronic News**, which Dr. Ceska puts together approximately every two weeks with information from around the world.

The most recent two issues (195 and 196) featured new book descriptions, a job opportunity, the discovery of red alder (*Alnus rubra*) in Montana and a quite technical (for a non-botanist like me) article on hornworts.

The NPSBC Native Plant Society of B.C. wrote about its AGM on May 23 and described two undertakings of the society: an "Atlas of British Columbia Flora that will involve members of the society and the public in surveying native plants and habitats in regions throughout the province; and Ethical

Use Guidelines and Principles."

There was also a very interesting article on plants of the Pacific Northwest in Europe. The author describes the effect of introduced plants such as salmonberry, western hemlock, salmonberry and salal; the latter is an invasive plant in north-east England.

To subscribe, contact Dr. Ceska at aceska@victoria.tc.ca. BEN is archived at <http://www.ou.edu/cas/botany-micro/ben/>



I also subscribe to **Pacific-Biosnet**.

"**PACIFIC-BIOSNET listserver**: Contact Clayton J. Antieau antieau@wsu.edu for further information on the PACIFIC-BIOSNET Listserver. This listserver connects the Pacific Northwest (USA) Biological Resources and Ecological Restoration

Community. Washington State University Cooperative Extension supports the listserve, PACIFIC-BIOSNET, a free, unmoderated mailing list that was created in September 1995 to serve as a forum to provide information about and exchange ideas involving native plants, weeds, ecological restoration, wetland science, conservation, and biological resource regulation and management, with emphasis on Pacific Northwest issues.

"It is intended to be a comfortable, supportive place for subscribers from all levels of expertise to express themselves, seek information, and connect with others with similar interests. While honest differences of opinion are welcome, flames and personal attacks are not. PACIFIC-BIOSNET features a digest version as well as a regular list

Internet continued on page 7

Minister's Environmental Award

Bill Turner, executive director of The Land Conservancy (and GOMPS member), was one of five people selected in the individual citizen category to be a recipient of the Minister's Environmental Awards for his contribution to protecting and enhancing B.C.'s environment.

GOMPS was one of many organizations and individuals who wrote letters of support with the nomination papers submitted to Environment Minister Cathy McGregor by Colleen O'Brian, a director of Habitat Acquisition Trust Foundation.

Bill's energy, enthusiasm and knowledge of land trust matters have been an inspiration to many people. We're happy that he has received this deserved recognition. Congratulations, Bill.

Internet continued from page 6

and has all posts to it stored by topic."

□

From BEN I found a reference to a web site maintained by the Center for Urban Horticulture at the University of Washington on native plant gardening that might be useful to those GOMPS members who are establishing native gardens.

While not specifically dealing with Garry oak ecosystem-associated plants, there are topics of interest such as propagating, salvaging, sources, ethics, and even a limited data base with photos and descriptions of some plants and shrubs suitable for urban gardens.

<http://gardening.wsu.edu/text/nwnative.htm>

If you know of any sites that might interest GOMPS members, please contact me and I'll include them in future issues of the *Leaflet*.



Carmel Jorgensen and Bill Turner with The Land Conservancy display at the Native Plant Symposium at the University of Victoria in the spring this year.

Seed source

If you're interested in obtaining seeds for growing plants of the Garry oak ecosystem, a new (to us) source is **Frosty Hollow, Box 53 Langley, WA, USA 98260, phone/fax: 360-579-2332, e-mail:wean@whidbey.net**

Among the seeds listed in their catalogue are:

Tree and shrub seeds

Oceanspray (*Holodiscus discolor*), orange honeysuckle (*Lonicera ciliosa*), tall Oregon grape (*Mahonia aquifolium*), Indian plum (*Oemeleria cerasiformis*), Garry oak (*Quercus garryana*), red-flowering currant (*Ribes sanguineum*), baldhip rose (*Rosa gymnocarpa*), Nootka rose (*Rosa nutkana*), snowberry (*Symporicarpos albus*).

Grasses

California brome (*Bromus carinatus*) and blue wildrye (*Elymus glaucus*)

Wildflowers and herbaceous perennials

Yarrow (*Achillea millefolium*), Hooker's onion (*Allium acuminatum*), nodding onion (*Allium cernuum*), kinnikinnick (*Arctostaphylos uva-ursi*), great camas (*Camassia esculenta*), several varieties of camas, Henderson's shooting star (*Dodecatheon hendersonii*), woolly sunflower (*Eriophyllum lanatum*), fawn lily (*Erythronium revolutum*), chocolate lily (*Fritillaria lanceolata*), alumroot (*Heuchera micrantha*), spring gold (*Lomatium nudicaule*), bicolour lupin (*Lupinus bicolor*), prairie lupine (*Lupinus lepidus*), sword fern (*Polystichum munitum*), broad-leaved stonecrop (*Sedum spathulifolium*), satin-flower (*Sisyrinchium douglasii*) and death camas (*Zygadenus venenosus*).

If the seeds you are looking for aren't in the catalogue, ask anyway.

South Winchelsea update

With the transfer of ownership on June 25, The Land Conservancy now becomes the new owner of South Winchelsea Island. According to a June 28 article in the *Times Colonist* announcing the purchase, over \$250,000 has already been raised through mostly public donations. A substantial amount still has to be raised over the next five years.

A conservation covenant will be registered with the property, so that the island will be perpetually protected from development.

A summer raffle is now underway, with the prize a framed etching donated by Robert and Brigit Bateman called "Moose". Tickets are \$2 each. If you can sell some tickets, please contact 361-7693.

TLC is also selling T-shirts, sweat shirts and golf shirts with the TLC logo.

If you haven't donated yet, please consider doing so. You can sponsor meters on South Winchelsea Island with a one-time donation or pay a fixed amount per month.

TLC received funding to hire 2 ETEAM positions for 12 weeks. The two people hired will spend part of their time doing inventory mapping on South Winchelsea Island and in the Highlands, where TLC holds a number of conservation covenants.

Visit the TLC website: <http://www.conservancy.bc.ca>

Mount Tolmie broom bashes

Now that the wildflower season is almost finished, Eric Redekop has resumed his dedicated work on Mount Tolmie.

Broom bashes are scheduled for all Sundays in July and August from 9:00 a.m. to 3:00 p.m. Follow the pink flagging tape from Mayfair Drive to works areas. For more information, contact Eric at 595-7270.

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c/o A-954 QUEENS AVENUE, VICTORIA, B.C. V8T 1M6

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Youth and Associate \$6 (no newsletter) Local sources for Garry oak meadow plants

Gift memberships, send receipt to: Garry Oak Inventory Project

_____ Operation Clean Sweep (broom removal)

_____ Growing, planting Garry oaks



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society AUGUST/SEPTEMBER 1998, Vol. 5, No. 7

First visit to South Winchelsea Island



COLLEEN O'BRIEN, with loppers in hand, works her way down a hill on South Winchelsea Island. In May Colleen lead a keen group of broom bashers, determined to forestall a new crop of broom next year.

Photos by Katie Stewart

by Katie Stewart

In late May I ran into Colleen O'Brien, a director of Habitat Acquisition Trust Foundation, at Thrifty Foods. She told me she was leading a broom bash on South Winchelsea Island on May 24, a Sunday. As I usually work Saturdays, I quickly responded, asking her if I could go. I had missed a field trip to the island in the spring which had happened when I was in Ontario.

There was room in her vehicle and after we picked up Conan Phelan, an E-Team member working for The Land Conservancy for the summer, we headed off to Nanoose Bay to rendezvous with other broom bashers.

Clint Abbott provided transportation from the marina in his dad's boat and after dropping us off at the island, went off to Schooner Cove to pick up one more person. There was already a boat tied up at the wharf when we arrived and a family of children and several adults at the cabin on the island.

There was a lot of broom and blackberry by the cabin and at another location where a road had been punched in to bring in supplies to the cabin when it was built. It will take some time to remove it all, and future work parties, but I'm sure that eventually it will be brought under control.

The island is incredibly rich in flora. I am used to the Garry oak parks of southern Vancouver Island which, though beautiful, are considerably

South Winchelsea cont. on page 2

South Winchelsea cont. from page 1

changed from their original plant composition and usually have an abundance of non-native grasses, shrubs and flowers.

Not so South Winchelsea.

I only was able to walk in the near vicinity of the cabin and our work area, but nonetheless was astonished at the sight of so many different species. I counted 30 different species and I'm just an amateur, so I wonder what an inventory will reveal.

I "discovered" one species new to me — Slimleaf onion (*Allium amplectens*), which Hans Roemer confirmed for me.

I had never seen such large specimens of sea blush (*Plectritis congesta*). Hans told me that Oluna Ceska (Adolf Ceska's wife) had planted some seeds from the island and the plants from these were also extraordinarily large.

About 10 adults worked for four hours, sometimes in light rain, clearing as much broom and blackberry off the former road as we could and carried it down to the shore. It felt very satisfying and I want to go back to do more, perhaps in the fall. I suggested to Bill Turner, TLC volunteer executive director, that perhaps we could do retreats, where we worked for part of a couple of days and then had the rest



HAULING BROOM to the beach.

of time for ourselves.

Because there is a lot of fragile vegetation, a trail system will need to be established before many more people start tramping around the island, however.

I arrived at the island very excited knowing that this island will be protected forever. It belongs to The Land Conservancy now, BUT, it still needs to be paid for. So folks, if you haven't contributed yet, and are in a position

to do so, now's the time.

The Land Conservancy also needs your membership so that it can accomplish the many projects underway. South Winchelsea Island is only one of many — conservation covenants, monitoring, and as you will read in future issues of the *Leaflet*, further purchases of sensitive habitat.

If you'd like a membership form, contact me at 386-4792 and I'll make sure you get one. If you want to help pay for South Winchelsea, send your tax-deductible donation to **The Land Conservancy, 5793 Old West Saanich Road, Victoria, B.C. V8X 3X3.**

SOUTH WINCHELSEA FUNDRAISER

Cruise to South Winchelsea on September 12 aboard the ex-RCMP patrol vessel Alert Bay. The boat leaves from Nanaimo Harbour and dinner will be served on board. Price is \$100 per person, with a tax receipt provided for \$50. For reservations, call the TLC office at 361-7693.

A broom bash on the island is being held the same day. If you're interested in helping please call Eileen, 361-7693.



SEA BLUSH (*Plectritis congesta*) alongside shed wall on South Winchelsea.

Further correspondence from Environment Minister Cathy McGregor (June 22, 1998)

Thank you for your letter of February 8, 1998, regarding protection of the Garry oak ecosystem. Please accept my sincere apology for the delay in response.

As mentioned in earlier correspondence, the remaining unprotected sites of these ecosystems are invariably on private lands that are subject to local governments' land use planning and development control programs.

Recent amendments to the *Municipal Act* enable local governments to protect, restore and enhance the natural environment, its ecosystems and biological diversity.

These amendments were included in Bill 26, *Local Government Statutes Amendment Act, 1997*, and came into effect on October 20, 1997. I have enclosed a summary of highlights regarding these amendments, together with two booklets for your interest: "Stewardship Bylaws: A Guide for Local Government" and "Community Greenways: Linking Communities to Country and People to Nature."

You also commented about the funding of the Pacific Marine Heritage Legacy (PMHL) and South Winchelsea Island. The PMHL is a five-year cooperative program between Canada and British Columbia with the purpose of creating an expanded and integrated network of coastal and marine protected areas along the Pacific coast of Canada, with specific emphasis at this time on the southern Gulf Islands.

Staff from Parks Canada and BC Parks recently completed an evaluation of the Ballenas-Winchelsea area which identified the high conservation value of the archipelago and the potential to create a significant new protected area encompassing both terrestrial and marine environments.

The Land Conservancy of British Columbia currently has an initiative underway to purchase South

Winchelsea Island. Unfortunately, the PMHL program has had to decline becoming a funding partner in the acquisition initiatives directed at purchasing South Winchelsea Island due to funding constraints.

PMHL has provided no assurances with respect to matching funds and has been very clear about its inability to provide funding support to this initiative at this time. The only caveat to this has been a willingness by the PMHL program to reconsider funding requests when the funding situation improves.

In recognition of the high conservation and recreation values in this archipelago, however, the Province has agreed to investigate the implications and feasibility of protecting, in some form, the 13 provincial Crown islands and numerous islets in this archipelago.

Notwithstanding the recent funding constraints, both Canada and British Columbia remain committed to the PMHL objectives. On March 24, 1998, I had the pleasure of joining with His Royal Highness, the Prince of Wales; the Honourable Sheila Copps, Minister of Canadian Heritage; the Honourable Andy Mitchell, Secretary of State (Parks) and the Honourable Glen Clark, Premier, in announcing three new properties: Tumbo Island, Russell Island and Roesland on South Otter Bay, that were acquired under the PMHL initiative.

Canada and British Columbia are continuing to work together on several initiatives leading to an expanded network of marine and coastal protected areas in the context of overall coastal management.

Thank you for your personal commitment in helping realize the vision of the PMHL initiative and for advising me of your views.

Cathy McGregor,
Minister

KS comments:

At the risk of being facetious, please Ms Minister, tell me something I don't already know. I obtained the two stewardship booklets almost as soon as they were published (1996/1997) and I also obtained the changes to Bill 26 months ago.

A previous letter from Ms McGregor was published in the December 1997 *Leaflet*. At that time she wrote, "As you may be aware, the government has completed its Goal 2 acquisition plans for Vancouver Island, though some opportunities may exist in the Gulf Islands through the efforts of the Pacific Marine Heritage Legacy."

At the time of the March 1998 announcement regarding the three latest acquisitions under the PMHL program, local activist John Nelson was angered that the province grabbed the limelight, but had not actually contributed any money.

According to a *Times Colonist* newspaper article published March 31, the federal government has already contributed \$17.4 million but the province has not given any money since the first year of the program, 1995, when it put in \$5.4 million.

Pacific Marine Heritage Legacy criteria

South Winchelsea Island meets six of the eight primary selection criteria for land acquisition under the Pacific Marine Heritage Legacy program:

▼ **Representativeness:** good example of the natural characteristics considered to be representative of the Strait of Georgia Natural Region (Canada) and the Strait of Georgia and Georgia Lowlands ecoregions (B.C.). These include examples of characteristic habitats, wildlife, vegetation, hydrology and land forms.

▼ **Naturalness:** Lands should possess ecological characteristics as close as possible to those found in a natural

Minister continued on page 4

state, with fully functioning ecological processes. Lands should have experienced minimal development and disturbance by man. Where disturbance has occurred, the lands must have the ability and potential to recover to a natural state.

▼ **Biodiversity:** Lands should possess to the greatest extent possible the full range of ecosystems and habitats found in the Strait of Georgia.

Individual parcels which display high levels of biodiversity will receive priority attention, but not to the exclusion of properties which are excellent examples of specific habitat types.

Both approaches to acquisition will be necessary for the protection of biodiversity in the Gulf Islands.

▼ **Maintenance of Ecological Integrity (Viability):** Lands will be selected on the basis of their ability to maintain their ecological characteristics over time.

Lands and land assemblages should be selected, located and designed to establish an ecologically functional network of protected areas in which the

individual and collective viability can be sustained over the long term.

Considerations will include size, distribution, shape and compatibility of adjacent land and marine uses.

▼ **Complete Islands:** Complete islands, or large parcels of land on the larger islands, will be purchased wherever possible as a high priority.

Complete islands or large parcels will greatly enhance opportunities for ecosystem representation, biodiversity conservation and the maintenance of ecological integrity.

The other two criteria are Opportunities for Public Recreation and Tourism and Cultural Heritage. (I'm not if the latter category is applicable.)

South Winchelsea Island also fits these secondary selection criteria:

▼ **Rare and Endangered Species and Ecosystems:** Lands which sustain those species and/or ecosystems which are considered rare, endangered or unique should be protected against the loss of biodiversity and disturbance from human-induced change.

▼ **Opportunities for Scientific Research:** Lands may offer the potential

for scientific research with a priority focus on adding to the body of knowledge on the ecological characteristics of the Gulf Islands, the relative health of the Gulf Islands' ecosystem and the identification and mitigation of threats to its long term viability.

I quoted Trudy Chatwin, rare and endangered species biologist in the July/August 1997 *Leaflet*: "South Winchelsea Island (and probably some of the other islands [Ballenas Archipelago] provides a benchmark of undisturbed Garry oak communities and will be extremely valuable for research. It should probably have Ecological Reserve designation."

It doesn't appear likely that the province will be chipping in its share to the PMHL program. Nevertheless, the Minister must be continually reminded that the conservation-minded public expects the province to fulfill its obligations to the program. GOMPS members, let's inundate her with letters for resuming funding and for Eagle Heights grasslands, also mentioned in this issue of the *Leaflet*.



IN A NUTSHELL: NOTES FROM THE PRESIDENT

It's been a great and very busy summer. I was relieved that there were no pressing issues for the board to deal with, so we had the summer off, unlike last year during this time when we were dealing with Costco and other concerns.

We will be meeting within the first two weeks of September to resume our duties. That's not to say that we haven't been doing letter writing, answering phone calls, mailing information or making inquiries, such as the preparation I have been doing for an upcoming article on tree preservation bylaws.

That sort of work is ongoing.



I was looking on the Internet for *Quercus garryana* references and was startled to find Garry oaks listed on the City of North Vancouver site as being common native trees to the area. I emailed a response and said that to my understanding they did not grow naturally there. I received this reply from Catherine Jollymore, Environmental Protection.

"In fact, we do have several Garry oak trees growing in North Vancouver.

While they are not indigenous to the area, the District is promoting the growth of these trees in areas where hydrology has been changed by development. In well drained areas, the District is planting Garry oak along with other native south-western BC trees such as lodgepole pine and shore pine. Thus far, these trees have been quite successful."

She promised to remove the Garry oak listing to other trees on the web site.



GOMPS has several funding applications in the works. We have received word back (and a cheque) from one application, another looks likely to receive funding and I am finishing the details of a third, which is due by the end of September. I'll fill you in with details in another *Leaflet*.

I was asked by **Friends of Beacon Hill Park** to support them in their opposition to a music festival being held in the park. As a long-time Vancouver Folk Festival goer, well aware of the efforts that that festival goes to to protect the local habitat in Jerico Park, I told the Friends that I personally could not support their efforts. I suggested they contact other GOMPS directors if they cared to. We had quite an argument, and I was told "But you've al-

ways supported us before." True, but in this case I could not. In fact, if I weren't so busy with my environmental work, I'd volunteer (for the environment committee) if the festival gets the go ahead.

The City of Victoria has gone to the Supreme Court to see if it can give permission to the Roots Festival, because a precedence will be set if admission is charged in the park.

Just after the June/July *Leaflet* was mailed out, I received a letter from **Gordon Henry**, Inspector for Plant Health Surveys and Community Gypsy Moth Project Coordinator. He was looking for volunteers to construct and place cardboard gypsy moth traps. In the fall he needs volunteers to search

for egg masses in the affected residential areas. If you are interested in volunteering, contact **Jean Wallace** at **250-383-3336** or **Marisa Herrera** at **250-592-4293**.

I received an astonishing book, ***Rare Native Vascular Plants of British Columbia***, in the mail on August 24 from the Ministry of Environment. It "contains the current Red and Blue Lists of native vascular plants at risk in British Columbia, endorsed by the Ministry of Environment, Lands and Parks."

The preface states: "The Red List includes any indigenous species or sub-species (taxa) considered to be Extirpated, Endangered, or Threatened in

Notes continued on page 6

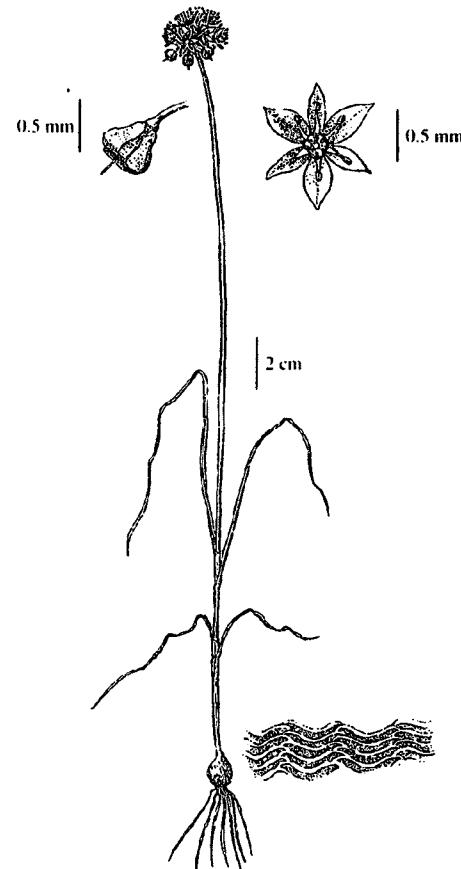
Allium amplectens Torr.

Slimleaf onion

Habitat/Range: Dry fields and hillsides in the lowland zone (CDF, CWH); rare on S Vancouver Island, the Gulf Islands and the adjacent mainland (Powell River); S to CA.

Global/Provincial Rank: G4 S2S3

Status: Blue



EXCERPT FROM *Rare Native Vascular Plants of British Columbia* published May 1998 by the Ministry of Environment, Lands and Parks

British Columbia. Extirpated taxa no longer exist in the wild in British Columbia, but do occur elsewhere. Endangered taxa are facing imminent extirpation or extinction. Threatened taxa are likely to become endangered if limiting factors are not reversed.

"Red-listed taxa include those that have been, or are being, evaluated for these designations.

"The Blue List includes any indigenous species or subspecies (taxa) considered to be Vulnerable in British Columbia.

"Vulnerable taxa are of special concern because of characteristics that make them particularly sensitive to human activities or natural events. Blue-listed taxa are at risk, but are not Extirpated, Endangered or Threatened. It also includes species that are generally suspected of being vulnerable, but for which information is too limited to allow designation in another category.

"As a 'conservation triage', these lists indicate taxa that have population characteristics, population trends, or distributions that indicate they require special attention if they are to be maintained as part of the flora of British Columbia.

"The Red and Blue lists are also being used in the Forest Practices Code to identify endangered and threatened wildlife (which also includes plants in its definition) that require attention under forest development, silvicultural and range use operational plans."

The 1-1/4 in. thick volume, published in May 1998, lists Latin and common names, global/provincial ranking, distribution map, habitat/range, black and white drawings and any special notes.

Authors are George Douglas, Conservation Data Centre, Gerald Straley (1945-1997) and Del Meidenger. A number of plant taxonomists, including Dr. Adolph Ceska, Oluna Ceska and Leon Pavlick, made contributions to the book. Much of the material comes from a book called *The Vascular*

Plants of British Columbia and many illustrations are from Hitchcock and Cronquist, although local illustrators also made drawings.

through clearly defined goals, conservation covenants, alliances with other conservation groups and outright acquisition of critical habitat.



Eric Redekop has received partial funding from the Habitat Conservation Trust Fund for his work on Mount Tolmie (see *Leaflet* May 1998 — In a Nutshell). While he is happy to have had the funding reinstated, he is concerned about the lost momentum.

He didn't get the summer cutting of Himalayan blackberry done and says he will also have to eliminate the December broom bashes. Eric also needs to go back over the areas already cleared to maintain them, rather than starting new areas.



As of September 19, I will be assuming new responsibilities, this time as a director of **The Land Conservancy of British Columbia**. I feel quite passionate about the positive work TLC is doing: protecting endangered habitat,

Of course, this means I'll be even busier, which means I will have to evaluate my role with the Garry Oak Meadow Preservation Society. I'll discuss this with the other directors at our next board meeting.

I anticipate continuing as President of GOMPS until the March 1999 AGM. After that time I will no longer be President, as I will have completed the four years maximum allowed.

So fellow GOMPS members, think ahead to March. Most of you have been content to allow your board to do the bulk of the work of the society, but some of you will have to step forward if current directors choose not to continue, as might happen. (Five directors will need to be elected, possibly six if I don't stay on). The other option will be the society folding if no one else wants to be involved. Please think seriously about volunteering.

Eagle Heights Pocket Grasslands protection sought

by Katie Stewart

On June 7, Dr. Hans Roemer led a grass identification walk for members of the Victoria Horticultural Society Native Plant study group. He had led an outing last year and in 1996 he had done a combined walk for GOMPS and the NPSG.

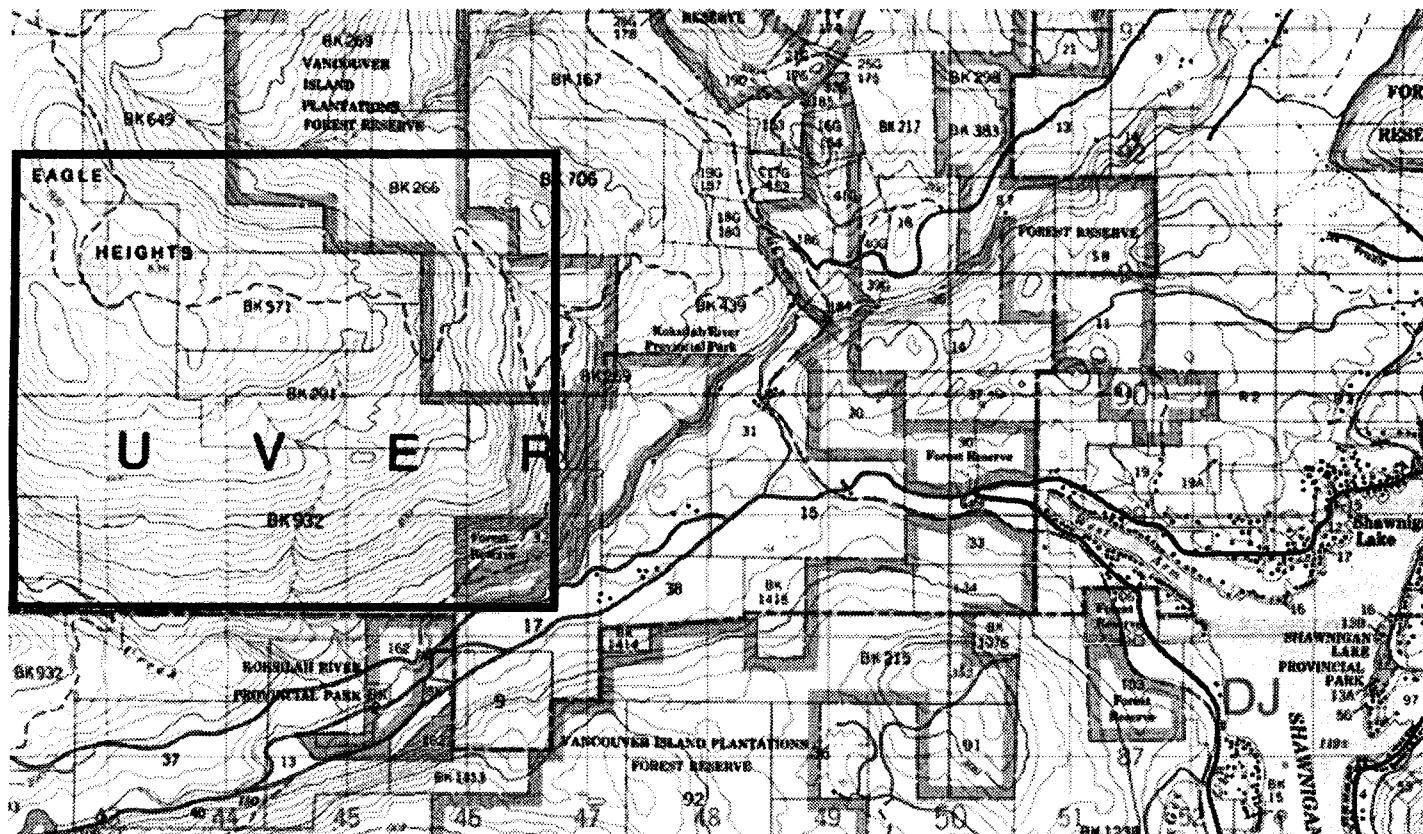
This year he chose Eagle Heights Grasslands, about 250 m uphill from Koksilah River Provincial Park. We drove from Victoria to Burnt Bridge, a popular swimming hole with teenagers, and first looked at some woodland penstemons (*Penstemon nemorosus*) and silverback luina (*Luina hypoleuca*) near the bridge. From there we walked parallel to Koksilah River to a trail and walked up the mountain to the grass-

land areas.

Along the way, we met Don Webb, chairman of the Koksilah Park Society, and an active member of a coalition of groups which is campaigning to get the grasslands protected. He was supposed to be meeting people to bash broom, but since no-one came, he joined us and gave us some background on their grassland campaign.

What I found extraordinary about the grassland balds were the intact native grasses and the lack of invasive plants. There was no Scotch broom, although there were some clumps of oxeye daisy, the common daisy (*Leucanthemum vulgare*) which is widespread across North America.

In the summer of 1996, Hans identi-



fied this particular area as being the "finest rare pocket grassland on Vancouver Island," because it contains the largest diversity of native grasses.

A number of the plant species are in common with Garry oak plant communities. We did see some Garry oaks but it is the grasses which make this area so special.

During our four or so hours on the hill we were introduced to Roemer's fescue (*Festuca idahoensis* var. *roemerii*), junegrass (*Koeleria macranthus*), California oatgrass (*Danthonia californica*), Lemmon's needlegrass (*Stipa lemmonii*), blue wildrye (*Elymus glaucus*), long-stoloned sedge (*Carex inops*), many-flowered sedge (*Luzula multiflora*) and in the woodland areas, California brome (*Bromus carinatus*) and Alaska oniongrass (*Melica subulata*).

Other species we noted were arbutus (*Arbutus menziesii*), baldhip rose (*Rosa gymnocarpa*), tall Oregon-grape (*Mahonia aquifolium*), Bicknell's geranium (*Geranium bicknellii*), probably common camas in seed (*Camassia*

quamash), fawn lily (*Erythronium oregonum*), Menzies' larkspur (*Delphinium menziesii*), Hooker's onion (*Allium acuminatum*), woolly sunflower (*Eriophyllum lanatum*), Western buttercup (*Ranunculus occidentalis*), spring gold (*Lomatium utriculatum*), Indian consumption plant (*Lomatium nudicaule*), farewell-to-spring (*Clarkia amoenia*), Indian's dream fern (*Aspidotis densa*), sticky cinquefoil (*Potentilla glandulosa*), slender sandwort (*Arenaria stricta*), vari-leaved collomia (*Collomia heterophylla*) and Gairdner's yampah (*Perideridia gairdneri*).

Botanists among you might notice by the plant list that there are also a few seepages on the bals.

The coalition is trying to convince Minister of Environment Cathy McGregor to make Eagle Grasslands an ecological reserve. The provincial government and Macmillan-Bloedel own the land where the grasslands occur. Mac-Blo is apparently willing to agree to a land swap with a part of Koksilah River Provincial Park, which

would keep buffer areas intact. Otherwise, Mac-Blo will begin logging within two years, which would inevitably destroy the integrity of this area by creating disturbances which would allow the introduction of invasive non-native species. Mac-Blo does not want to sell the land, however.

Don Webb phoned me in August quite upset and angry that after four years of effort, the Minister wrote him a letter suggesting that community groups buy the land — buy crown land? Or buy land Mac-Blo is not willing to sell? Either way, it is ludicrous. Needless to say, Don is frustrated, because it doesn't appear to him that the Minister's office has even read the CCCC's proposal or supporting documents from local scientific experts.

The Cowichan-Chemainus Conservation Coalition consists of Cowichan Valley Naturalists, Cowichan Fish and Game Assoc., Chemainus Rod and Gun Club, Chemainus River and Westholme Delta Conservation Association, Koksilah Park Society,

Eagle continued on page 8

Somenos Marsh Wildlife Society, Cowichan Estuary Preservation Society, East Vancouver Island Sierra Club of B.C., Hill 60 Residents Assoc. and two other organizations, P.O. W.E.R. and C.O.I.N., whose acronyms I don't know the meaning of.

If you're interested in supporting the coalition's campaign, contact Don Webb at 250-743-2769. GOMPS has already written a letter of support for the campaign to Ms McGregor earlier this summer, but you can still add your voice!

In fact, considering her response to Don, please mention that it is the ministry's responsibility to protect rare and pristine habitat, not community groups. If you write, please c.c. a letter to the coalition at Box 545 Duncan, B.C. V9L 3X9.

Call for Papers: Biology and Management of Species and Habitats at Risk

February 15-19, 1999
University College of the Cariboo
Kamloops, B.C.

This conference is devoted to increasing the availability and application of emerging information concerning species and habitats at risk in British Columbia. This will be the first major gathering about the biology and management of threatened, endangered, vulnerable, and regionally important species and habitats in British Columbia in nearly 20 years.

Abstracts from all authors (posters and oral) must be received by October 19, 1998 to be considered for inclusion in the programme. For info. e-mail: dfraser@fwhdept.gov.bc.ca or call Dave Fraser, Ministry of Environment 387-9756. For full details on conference on the Internet are at <http://www.cariboo.bc.ca/speciesatrisk>.

Full details on the conference will be included in the next *Leaflet*.

ONGOING

PUBLIC RELATIONS

GOMPS DISPLAYS: Phone 386-4792 for possible locations

FUND-RAISING COMMITTEE

As our main fund-raiser, GOMPS has for sale full colour posters of a Garry oak and a meadow of camas/buttercups under a bright spring sky. We also have wildflower placemats, wildflower posters and the *Garry Oak Meadow Colloquium Proceedings* for sale. Call Tom Gillespie at 361-1694.

PRESERVATION/RESTORATION COMMITTEE

SEED/SEEDLING EXCHANGE. Interested members contact Katie Stewart at 386-4792.

OPERATION CLEAN SWEEP (broom removal). Call Eric Redekop at 595-7270 for information.

RESEARCH COMMITTEE

PUBLIC CONSERVATION ASSISTANCE FUND GARRY OAK INVENTORY PROJECT. Project coordinator is Paul Gareau, 592-9089.

NEWSLETTER

If you have any contributions — photos, art work, articles, letters of agreement or disagreement or anything else you'd like to contribute, contact Katie Stewart at 386-4792 or mail to address below.

GARRY OAK MEADOW PRESERVATION SOCIETY
c/o A-954 QUEENS AVENUE, VICTORIA, B.C. V8T 1M6

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Treasurer and Finance Chair Tom Gillespie 361-1694		
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Please send more information about:

Youth and Associate \$6 (no newsletter)

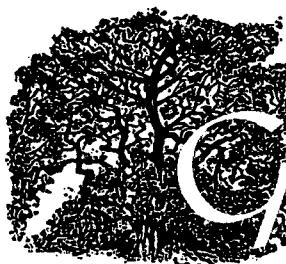
Local sources for Garry oak meadow plants

Gift memberships, send receipt to:

Garry Oak Inventory Project

Operation Clean Sweep (broom removal)

Growing, planting Garry oaks



GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

OCTOBER/NOVEMBER 1998, Vol. 5, No. 8

Nature Conservancy to purchase Elkington property

by Katie Stewart

If you take a drive along Maple Bay Road in the Cowichan Valley, you might notice amid the new subdivisions and occasional farms, a substantial piece of property full of scrubby Garry oaks on the left hand side of the road, before the Genoa Bay Road turn-off.

This is the 30-acre Elkington property, 23 acres of which contain Garry oaks and their associated plant community.

According to Conservation Data Centre botanist George Douglas' field survey completed in April, 1998, this plant community is considered by the CDC to be the best example of this community in B.C. (See sidebar.)

This fabulous refuge, however, has been for sale for a few years.

Concerned over the future of the property, local residents Barbara and Michael Stone enlisted the help of several conservation organizations to see if its protection might be possible.

A developer had already taken out an option on the property for a subdivision, but because of septic percolation problems and sewage concerns, the option had lapsed this summer. In addition, the family had already cut down some substantial Douglas-firs for income.

As well as her environmental concerns, Barbara Stone also worried that Maple Bay Road was losing its rural character, with so many subdivisions being built and that the Elkington property would be lost as a gateway into

Maple Bay.

On October 5, I attended a meeting at the Stones' home in Maple Bay. Gathered around the table were local representatives of the Cowichan Valley Natural History Society and Maple Bay Ratepayers group, a retired forester, a North Cowichan alderman (a retired diplomat) and his wife, a director and employee of the Cowichan Community Land Trust, a Habitat Acquisition Trust director and two employees of Nature Conservancy Canada, Regional Director Kirk Davis and Project Coordinator Jan Garnett.

The Garry oak stand on the Elkington property is considered the best example of the Quercus garryana plant community in British Columbia.

George W. Douglas, Conservation Data Centre

Jan and Kirk had looked at potential land acquisition projects in British Columbia to take to the provincial Board of Directors and settled on two: the Elkington property and a project in the Interior. The provincial directors voted unanimously on the Elkington property and at the national level, the scientific representative advised the board that this project was of national significance.

Kirk explained that Nature Conservancy is focussing on rare habitats: the tall grass prairie in Manitoba, the grasslands of the Southern Okanagan, Carolinian forests of southwestern Ontario and coastal Douglas-fir of British Columbia. The Nature Conservancy also asked the Conservation Data

Centre what were the best projects.

The Nature Conservancy has obtained an option on the property and has until June 1999 to come up with the money.

Jan negotiated the purchase with the three Elkington brothers, sons of the owner who, at 99 years of age, still lives — and will continue to live — on the property. She said that both the old man and his grandchildren are thrilled that the property will be protected.

The Nature Conservancy has \$300,000 already committed towards

the \$800,000 required. Before announcing the purchase publicly, Kirk is working with the Stones to solicit donations from well-heeled people in the Cowichan Valley.

GOMPS will be working with the Cowichan Community Land Trust on an educational campaign to get public support and donations for this project. It was clear at the Stones' table that not everyone knows about the Garry oak ecosystem and how endangered it is. Even the forester present did not know much about it and Jan distributed copies of the Ministry of Environment's brochure on Garry oak ecosystems (Ecosystems in British Columbia At Risk) to everyone.

Elkington cont. on page 2

Are there any GOMPS members who might like to get involved with this educational campaign? It might involve speaking to classes (the major donor to this project, who committed \$100,000, would like there to be an

educational component involving children) or community groups and perhaps some writing, such as an article or two to the local newspapers.

We have not yet started but will need to begin fairly soon. The GOMPS board needs your help.

This acquisition project, like the purchase of South Winchelsea Island, is very important. Unfortunately, it is the only way these Garry oak habitats will be protected. And fund raising is no easy task. But the alternative, destruction of rare plant communities, is untenable.

Field Survey — Elkington Property, Duncan, B.C.

Date — April 28, 1998

Purpose — Survey property for rare vascular plants

Personnel — G.W. Douglas & S. Hartwell

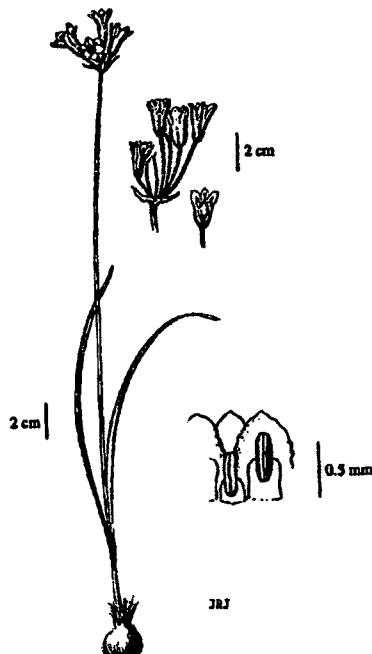
Quercus garryana plant community. The stand on the Elkington property is considered the best example of this community in B.C. A very good array of spring taxa are still in existence.

The rare plant community inventoried three species of plants. These included *Aster curtus*, *Triteleia howellii* and *Viola praemorsa* var. *praemorsa*. All three of these species are considered threatened and are included on the the Ministry of Environment's RED list.

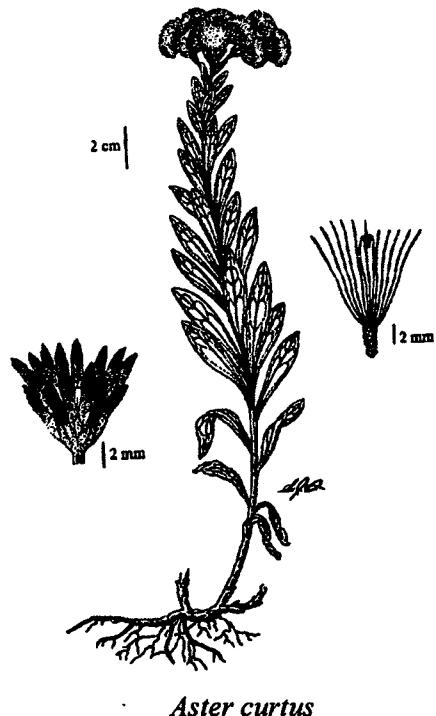
Aster curtus (White-top aster): Three populations of this species with stem numbers totalling 46, 182 and 630 and areas of 1, 12 and 4 sq. m, respectively, were located. Only three other sites (out of a present total of 17) in B.C. have greater numbers of stems.

Triteleia howellii (Howell's triteleia): A single population of 27 plants, covering 7 sq. m, occurs on the Elkington property. This is the second largest of five sites, known in B.C.

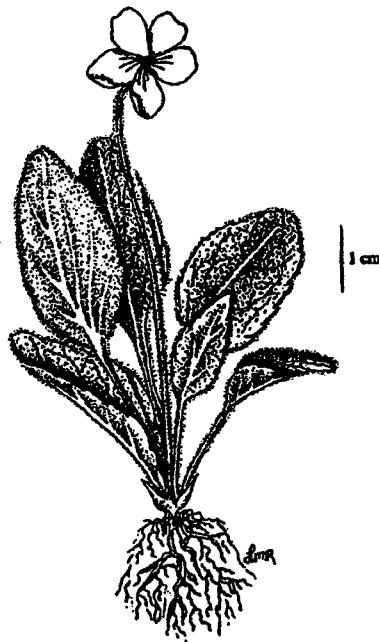
Viola praemorsa var. *praemorsa* (Yellow montane violet): The Elkington property represents the 14th extant site for this species in B.C. A total of 11 populations ranging in numbers from 25 to 2795 plants and from 4 to 430 sq. m. With



Triteleia howellii



Aster curtus



Viola praemorsa var. *praemorsa*

a total populations of 6940 plants, this is the second largest in B.C.

Summary — From a botanical viewpoint, the Elkington property is an extremely valuable site. The relatively pristine spring condition of the vegetation is unusual at this point in time.

Rogers Farm: back to square one

by Sharron Waite

The red-tailed hawks of Rogers Farm have a reprieve due to an unusual move by Saanich Council. In a 5-3 vote after reopening the public hearing October 6, Council rescinded the first three readings of the rezoning by-law for the farm and rejected the rezoning application.



The cause of the rare action was an impasse over the location of a greenway through the farm to connect Swan Lake and Christmas Hill to the Blenkinsop Valley and Mount Doug.

The controversy over the trail's location was whether it should be built to the east or the west of Rogers School. A trail to the west would avoid the school grounds but slope steeply first

downhill and then back uphill.

Community and municipal opposition to that route centered on concerns the slope and extra distance would lead to extensive short-cutting through the school grounds, jeopardizing the security of the school and its students.

In her remarks at the public hearing, Phyllis [Rogers] Fatt indicated the Rogers' Family objection to the eastern route



through the subdivision was the intrusion upon the oak meadow and the increased access to the Nature Sanctuary it would afford. She was supported by the Board of the Nature Sanctuary.

The Rogers Family offered to build the western trail at their expense upon

subdivision. The Rogers felt so strongly about about the matter they announced they would withdraw their gift of land if Council insisted on the eastern route. In doing so, they materially changed the terms of the application and Council was forced to rescind the by-law when it rejected the westerly route.

Who won? Probably no one. The Rogers Family faces further delays, negotiations, and expense to win development approval. The community faces uncertainty about what, if any, part of the oak woodland will be secured in public control.

But meanwhile, the hawks, the owls, and the local raven continue to go about their business of living, unaware of the drama swirling about their homes. The juncos and sparrows have taken up winter residence, cheeky jays are visiting as they do some years, and the acorn crop is so rich nuts are almost as numerous as fallen leaves.

Biology and Management of Species and Habitats at Risk February 15-19, 1999 University College of the Cariboo • Kamloops, B.C.

We are pleased to announce a conference devoted to increasing the availability and application of emerging information concerning species and habitats at risk in British Columbia. This will be the first major gathering about the biology and management of threatened, endangered, vulnerable, and regionally important species and habitats in British Columbia in nearly 20 years.

The conference will be a platform for discussion of issues, research, and management techniques, focused on Western Canada within a Pacific Northwest context. It will bring together land managers, researchers, conservation organizations, inventory personnel, policy makers and the public who share an interest in the management of sensitive species and habitats.

The goals of the conference are to:

- ✓ Increase availability of information concerning species and habitats at risk in B.C. and adjacent jurisdictions;
- ✓ Showcase recent research and working examples;
- ✓ Identify specialists and experts working in the realm of species and habitats at risk;
- ✓ Foster the exchange of information on research methods and management practices;
- ✓ Encourage the development of communication channels between researchers, inventory personnel, resource industry managers, conservation organizations, and policy makers;
- ✓ Promote training and education for professionals and the public;
- ✓ Publish symposium proceedings for future reference

We invite papers and posters that deal with any of the following aspects of management of species and habitats at risk:

BIOLOGY OF SPECIES AT RISK

Natural History of Species at Risk:
Vertebrates, Invertebrates and Plants

Monitoring Populations of Species at Risk

Tools and Techniques for Sampling Rare Species

Taxonomy of Species at Risk

Managing for Genetic Diversity

MANAGEMENT ISSUES FOR SPECIES AND HABITATS AT RISK

Corridors and Connectivity

Conference cont. page 6

Leaked MoELP memo on BC Endangered Species

Just a few days before the provincial wildlife ministers met on September 29 in Victoria, West Coast Environmental Law published this memo on its Internet web site.

The leaked memo resulted in a blast from the *Times Colonist* editorial page prior to the meeting, which said the government "is lying if it says that existing laws do the job just fine." Yet Environment Minister Cathy McGregor maintains, "There is no other province in Canada who has put aside as much habitat which supports endangered species as British Columbia. So clearly, we have done more than our part." (*Times Colonist*, September 28, 1998.)



This is the full reproduced text of a leaked internal Ministry of Environment document which explains why B.C. deserves a failing grade for species protection. This document contains a detailed review of B.C.'s legislative and policy initiatives to protect species at risk and concludes that BC deserves an "F".



Ministry of Environment, Lands and Parks

Priority Issue

Date: October 24, 1997

File: 00280-1

Issue: Endangered Species

Background/Facts:

- This briefing note is prepared to provide information related to the ministry's program for protection of endangered species. This note has been updated from the previous one dated October 16.
- Species at risk include species that are considered to be threatened or endangered.
- Species throughout the world are at risk as result of human population growth, growing economies, and the resulting demands on resources and the environment. The end results are

habitat loss due to development, degradation of the environment, introduced exotic species, and illegal killing, that significantly reduces natural wildlife populations, resulting in many threatened or endangered species. Similar pressures occur in British Columbia.

- The new *Fish Protection Act* covers aquatic invertebrates and plants that are a factor in fish production.
 - The *Ecological Reserves Act* and the *Park Act* provide for protection of all species within their borders.
- Policy and Operational Initiatives:**
- BC is signatory to the Rio Convention of 1992, committing the province to protection of endangered species and biodiversity.
 - The National Framework and Accord on Endangered Species, endorsed by all provinces and the federal government, lays out a Canada-wide approach to protecting endangered species through legislation and cooperative activities.
 - New protected areas under the Protected Areas Strategy are being put in place to help protect species and ecosystems at risk.
 - The Conservation Data Centre maintains records of dozens of threatened and endangered species of vertebrates, invertebrates, plants and plant communities, and ecosystems in B.C.
 - The ministry has prepared and implemented recovery plans for the four designated endangered species and additional other species at risk.
 - The Grizzly Bear Conservation Strategy has been implemented to ensure the long term survival of this species. A Mountain Caribou Conservation Strategy is currently under development. These high profile species are not currently considered endangered, but significant management action is needed to prevent future endangerment.
 - The Spotted Owl Management Plan is a positive step in long term pro-

impacts due to forestry and grazing actives within the Crown provincial forest. Protection of species at risk is to be achieved largely through the Identified Wildlife Program.

tection of this species.

- One of the objectives of the Urban Growth Management Strategy is to help protect sensitive wildlife from loss due to the rapid urban development that is occurring in some regions. Many species are currently put at risk in BC from urban development.

Discussion/Analysis:

- There are significant "holes" in B.C.'s endangered species and species at risk protection. These include:

- Presently only four species are legally designated as endangered under the *Wildlife Act*. There are about 2 dozen more on the ministry's Red List that should be considered for immediate designation as threatened or endangered.

It is illegal to take, trap, wound or kill any wildlife species designated as Wildlife unless allowed otherwise by regulation. This prohibition also applies to the four designated endangered species but is not a special requirement for these.

- The *Wildlife Act* does not provide for mandatory protection of habitat for endangered species, except designated Critical Wildlife Areas within Wildlife Management Areas. There are very few Wildlife Management Areas or Critical Wildlife Areas for endangered species.

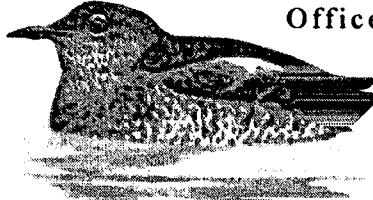
- No legislation requiring preparation and implementation of recovery plans.

- No legislation to protect habitat outside the provincial forest.

- Existing legislation does not adequately protect some critical habitats such as nesting areas for birds at risk. For example, earlier in 1997, in spite of concerns from MELP and Canadian Wildlife Service (CWS), Ministry of Forests (MOF) approved logging of forest known to be nesting habitat for Marbled Murrelet, a high profile Red-listed

species.

The logging occurred in an area defined by the Marbled Murrelet Recovery Team as the most critical in the province. The CWS, which chairs the recovery team, sent in federal Conservation Officers



(COs) to investigate along with provincial COs. Even though no charges were laid, major controversy resulted involving MELP, MOF, CWS, the media, and the public.

It is likely that this issue will be used to support strong federal endangered species legislation, on ground that the province was unable to protect this critical habitat. Marbled Murrelet are on the Identified Wildlife list, and therefore will be eligible for some protection under the Forest Practices Code once Identified Wildlife is approved.

- No legislation to protect plants, plant communities and invertebrates at risk outside the provincial forest, or which do not provide Food for Fish.
- No legislation to ensure exotic species harmful to native species at risk are not introduced into BC. For example, introduction of exotic frog and fish species has caused reductions or extinctions of species such as stickleback fish.

- **The Identified Wildlife Strategy under the Forest Practices Code has not been implemented due to MOF and industry operational concerns. The MOF concerns will be jointly resolved with MELP very soon.**

A joint MOF and MELP Briefing Note will be presented to the Ministers for a decision on the extent of further consultation required

with industry and NGO stakeholders.

Option 1 is to close off current consultations and release Identified Wildlife near the end of 1997. Option 2 is to expand consultations with anticipated release in March 1998. MOF and MELP have recommended Option 2, continued consultations, to reduce uncertainty with stakeholders.

□ The 1% cap on impacts of Identified Wildlife on annual cut, will likely result in many species not receiving adequate long term protection from forestry activities.

□ Current measures to protect species at risk from impacts due to agriculture and grazing are inadequate.

□ Current Ecological Reserve and Park systems do not provide adequate protection for all current legally designated endangered species, or for Red-listed species that should be designated.

□ The *Fish Protection Act* does not protect invertebrates and plants that are not food for fish. This Act does not protect species which live in aquatic or riparian habitats which do not support fish. Endangered amphibian species for example are often found in non-fish waters. Also, this act has not yet been fully implemented and therefore its potential success is unknown.

□ Wildlife Program has been unable to participate adequately in the Urban Growth Management Strategy and therefore there has been inadequate protection of species at risk due to urban development, and several species are in danger of extirpation as a result.

□ Legislation is required to support recommendations of ministry biologists in referral systems for developments under control of other agencies. Presently ministry recommendations are often over-ruled,

Endangered species cont. on page 6

resulting in impacts on species at risk.

□ In the long term, action is needed on B.C.'s contribution to global climate change, as changing climate has the potential to cause massive disruptions to ecosystems and wildlife, resulting in more endangered species.

□ Endangered species cannot all be protected by one mechanism. For example, it is not possible to protect all species in Parks or Ecological Reserves, so the fact that protected areas miss species is not by itself a major concern.

Effective protection of endangered species requires that all of the available tools are collectively used to complement each other. Even so, the problems noted above show that significant improvements are needed to meet the goals

of adequate endangered species protection.

Failure to address these issues will likely result in the federal government enacting endangered species legislation and implementing prohibitions in BC.

□ **Vancouver Island Marmots are legally designated as Endangered under the Wildlife Act.**

This species exists only on Vancouver Island, and is not found anywhere else in the world. The population has declined to very low levels in recent years, and a difficult recov-



ery process involving captive breeding is now underway. Reasons for the decline are not certain at this time.

□ Delays in release of the Identified Wildlife documents under the FPC will result in significant problems. The Identified Wildlife program has been an important aspect of B.C.'s messaging on how it will protect species at risk. Release is now tentatively scheduled for December 1997.

□ Until the issues noted above are adequately addressed, B.C. will be in a weak position to contradict the "F" grade or prevent federal intrusion.

Contact: Don Fast, Assistant Deputy Minister, Environment and Lands Headquarters, 387-1280

Alternate Contact: Nancy Bircher, Director Wildlife Branch, 387-9731

Prepared by: Greg Jones

Conference cont. from page 3

Metapopulations and Fragmentation

Peripheral Species and Habitats

Global Warming

Impact Of Alien Species On Species Or Habitat At Risk

Evaluation of Risk

LEGISLATIVE AND ECONOMIC ASPECTS OF CONSERVATION

Transboundary Management Issues

Politics and Economics of Conservation — can there be a common currency?

Federal and Provincial Legislation

Species at Risk and the Burden of Proof

CONSERVATION STRATEGIES AND PROTECTED AREAS

Fine Filter vs. Coarse Filter

Single Large or Several Small (SLOSS) and Other Aspects of Reserve Selection

Do Parks Work?

Parks and Protected Areas and Endangered Species or Habitats

RESTORING ENDANGERED SPECIES AND HABITATS

What Works: Case Histories

Tool Boxes for Private and Public Land Management

Habitats at Risk — Conservation Tools, Policies or Initiatives

PUBLIC EDUCATION AND INVOLVEMENT

Interpretive Programming on Species at Risk

Environmental Education & Endangered Species

Involving the Public in Conservation

Creating Groups for Endangered Species

Stewardship of Species or Habitats at Risk

Keynote speaker: Dr. Reed Noss of the Conservation Biology Institute

SPONSORS

Sponsors of this conference include the Ministry of Environment, Lands and Parks, University College of the Cariboo, Forest Renewal BC, Canadian Wildlife Service, Nature Trust of British Columbia, The City of Kamloops, Conservation Data Centre, Association of Biodiversity

Information, Association of Professional Biologists of BC, The Leon and Thea Koerner Foundation, Forest Alliance of BC, Wild BC, Weldwood of Canada Ltd., Interior Lumber Manufacturers Association, Canadian Society of Environmental Biologists, Environmental Educators Provincial Specialists Association, Interpretation Canada, Society for Applied Technologists, Federation of BC Naturalists.

If you are interested in going, please see our web site (updated weekly) at <http://www.cariboo.bc.ca/speciesatrisk> or write for a registration form to Biology & Management of Species and Habitats at Risk c/o Forestry Continuing Studies Network, University College of the Cariboo, Box 3010, Kamloops, B.C. V2C 5N3.

Early registration (post-marked before December 15) is \$150 Cdn (regular delegate) or \$50 Cdn (student). Late registration is \$175 and \$60, respectively. Other costs are banquet (\$25) and field trips for the Monday and Friday of the conference week.

For more information, you also phone 250-371-5579.



**IN A NUTSHELL:
NOTES FROM THE
PRESIDENT**

There have been lots of phone calls this autumn, especially concerning the abundance of acorns and where to take them. Others were about ivy, trees being cut down and whether or not the oaks were dying from lack of water. One caller from Burton, B.C. (in the Interior on Upper Arrow Lake) wanted acorns to try growing Garry oaks. I sent her some in the mail and asked how she had got my name.



GOMPS director Hal Gibbard is sitting on a Gypsy Moth Task Force, a group of about 30 individuals from various ministries, horticultural and environmental groups. As recent headlines indicate, the province has decided to spray BtKrather than risk quarantine by the United States. The results of Hal's committee aren't in yet, but the province obviously didn't wait.



My apologies to Eric Redekop for not including the entire City-Wide Broom Schedule. As members must have noticed, the newsletter is now coming out bi-monthly, though there will be a small one in December to get us to the end of 1998 and on track.



With Christmas in the not too distant future, please consider buying a gift of "Sponsor a Square Metre" or "Adopt an Acre" for The Land Conservancy projects (see enclosed). You can also make a donation on behalf of someone for the Elkington acquisition. For more information about that project, please contact Jan Garnett at 250-652-6059 or email jgarnett@pacificcoast.net



Don't forget the upcoming Helping the Land Heal ecologi-

ONGOING

PUBLIC RELATIONS

GOMPS DISPLAYS: Phone 386-4792 for possible locations

FUND-RAISING COMMITTEE

As our main fund-raiser, GOMPS has for sale full colour posters of a Garry oak and a meadow of camas/buttercups under a bright spring sky. We also have wildflower placemats, wildflower posters and the *Garry Oak Meadow Colloquium Proceedings* for sale. Call Tom Gillespie at 361-1694.

PRESERVATION/RESTORATION COMMITTEE

SEED/SEEDLING EXCHANGE. Interested members contact Katie Stewart at 386-4792.

OPERATION CLEAN SWEEP (broom removal). Call Eric Redekop at 595-7270 for information.

RESEARCH COMMITTEE

PUBLIC CONSERVATION ASSISTANCE FUND GARRY OAK INVENTORY PROJECT. Project coordinator is Paul Gareau, 592-9089.

NEWSLETTER

If you have any contributions — photos, art work, articles, letters of agreement or disagreement or anything else you'd like to contribute, contact Katie Stewart at 386-4792 or mail to address below.

GARRY OAK MEADOW PRESERVATION SOCIETY
c/o A-954 QUEENS AVENUE, VICTORIA, B.C. V8T 1M6

**DIRECTORS AND OFFICERS
OF THE SOCIETY**

President and Public Relations Chair	Katie Stewart	386-4792
	e-mail camassia@bc.sympatico.ca	
Vice-President	Pierre d'Estrubé	477-2410
Treasurer and Finance Chair	Tom Gillespie	361-1694
	e-mail ua620@freenet.victoria.bc.ca	
Secretary and Membership		
Development Chair	Sharron Waite	479-3380
Director and Program Chair	Paul Gareau	592-9089
	e-mail upgareau@islandnet.com	
Director	Hal Gibbard	477-2986
Director	Michael Meagher	727-7675

MEMBERSHIPS AND DONATIONS

NAME _____

ADDRESS _____

MEMBERSHIP DUES: Donation

Individual \$15 Family \$20 Please send more information about:

Youth and Associate \$6 (no newsletter) Local sources for Garry oak meadow plants

Gift memberships, send receipt to: Garry Oak Inventory Project

_____ Operation Clean Sweep (broom removal)

_____ Growing, planting Garry oaks

The biggest ever City-Wide Broom Bash will open Saturday, October 10 at Mount Douglas Park. From October 10 to November 29, local volunteer leaders will supervise 38 public work events in 14 locations throughout the Victoria region.

CITY-WIDE BROOM BASH: LOCATIONS & LEADERS

1. Anderson Hill Park	Rodney Drabkin, 598-9336, oriole@islandnet.com
2. Blue Heron Park	Pat Bastone, 656-6594
3. Cattle Point	Margaret Lidkea, 595-8084, mlidkea@swanlake.bc.ca
4. Christmas Hill	Joan Cowley, 479-0211, jcowley@swanlake.bc.ca
5. Government House	Fran Spencer, 370-2541, bspencer1@home.com
6. Highrock/Cairn Park	Ron Steele, 386-7886
7. Horticulture Centre of the Pacific	Paul Gareau, 592-9089, upgareau@islandnet.com
8. John Dean Provincial Park	Edo Nyland, 656-9276, edonon@islandnet.com
9. Knockan Hill Park	Andria Tetlow, 479-1947
10. Mount Douglas Park	Ken Rankin, 477-8007
11. Mount Tolmie Park	Eric Redekop, 595-7270, eredekop@hotmail.com
12. Rithet's Bog	Sharon Hartwell, 479-0491, hartwell@islandnet.com
13. Summit Park	Deidre Gotto, 385-6359, abcd@islandnet.com
14. View Royal Park	Andria Tetlow, 479-1947

CITY-WIDE BROOM BASH: SCHEDULE OF EVENTS

15. Saturday, October 31, 9am-1:00pm: Anderson Hill Park
16. Saturday, October 31, 10:00am-Noon: Mount Douglas Park
17. Saturday, October 31, 9:00am-11:30: John Dean Park
18. Sunday, November 1, 9:00am-3:00pm: Mount Tolmie Park
19. Wednesday, November 4, 9:00am-Noon: Horticulture Centre of the Pacific
20. Saturday, November 7, all day: View Royal Park
21. Saturday, November 7, 9:00am-11:30am: John Dean Park
22. Sunday, November 8, 9:00am-3:00pm: Mount Tolmie Park
23. Wednesday, November 11, 9:00am-Noon: Horticulture Centre of the Pacific
24. Saturday, November 14, 9:00am-Noon: Rithet's Bog
25. Saturday, November 14, 9:00am-11:30am: John Dean Park
26. Saturday, November 14, 1:00pm-4:00pm: Highrock/Cairn Park
27. Sunday, November 15, 9:00am-3:00pm: Mount Tolmie Park
28. Sunday, November 15, 1:00pm-3:00pm: Christmas Hill; Joan Cowley
29. Wednesday, November 18, 9:00am-Noon: Horticulture Centre of the Pacific
30. Saturday, November 21, 10:00am-Noon: Government House
31. Saturday, November 21, 9:00am-11:30am: John Dean Park
32. Saturday, November 21, 1:00pm-4:00pm: Highrock/Cairn Park
33. Sunday, November 22, 9:00am-3:00pm: Mount Tolmie Park
34. Wednesday, November 25, 9:00am-Noon: Horticulture Centre of the Pacific
35. Saturday, November 28, 10:00am-1:00pm: Summit Hill Park
36. Saturday, November 28, 9:00am-11:30am: John Dean Park
37. Saturday, November 28, 1:00pm-4:00pm: Highrock/Cairn Park
38. Sunday, November 29, 9:00am-3:00pm: Mount Tolmie Park

For more information about the City-Wide Broom Bash, call Eric Redekop at 595-7270, email him at eredekop@hotmail.com or look at the program's web site: geocities.com/RainForest/Canopy/9157/citywide.htm

**THIS YEAR
GIVE A PIECE
OF BRITISH
COLUMBIA**

**GIVE
SOMETHING
TO BRITISH
COLUMBIA**

AND RECEIVE A TAX RECEIPT



The Land Conservancy
of British Columbia

● Black Creek Ranch

Klahoose

● Reynolds Ranch

●

South Winchelsea

● Sooke Hills

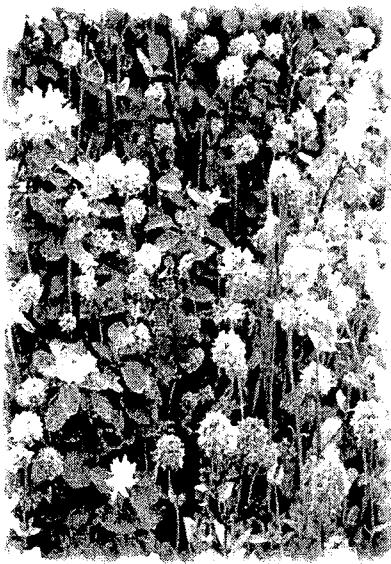


Photo by Trudy Chatwin

1. South Winchelsea Island

This island is one of 19 islands in the Ballenas Archipelago, an area which is proposed for protection because of its high biodiversity and wildlife values and relatively untouched ecosystems. The arbutus-Garry oak plant community on South Winchelsea is red-listed by the Conservation Data Centre. The island is considered a benchmark for Garry oak ecosystems because of the richness and pristine nature of its flora. It is an important sea lion haul-out site. TLC now owns the island but has less than five years in which to pay for it.

Sponsor Certificate: Every \$25 donated purchases and protects 4 square metres



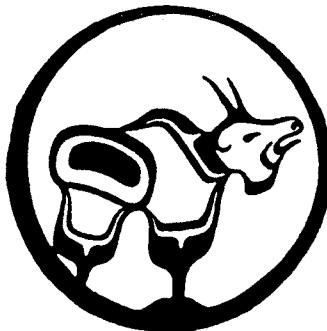
Photo by Bill Turner

2. Black Creek

The Black Creek Ranch is located on the Horsefly River, near Williams Lake. The property is approximately 800 acres and contains a very important salmon-raising area. By purchasing the ranch, cattle can be removed from the river area and restoration work undertaken to maintain the important habitat values necessary for the salmon.

Sponsor Certificate: Every \$25 donated purchases and protects 101 square metres

3. Klahoose



TLC is working with the Klahoose First Nation on Cortes Island to help Klahoose raise funds to buy an important cultural heritage site on the Gorge Harbour, Cortes Island. The site, traditionally used by First Nations people as a seasonal village for resource harvesting, contains significant archaeological deposits, including ancient burial caves and large middens. Protection of this strategically located property at the picturesque entrance to one of Desolation Sound's most protected harbours is a priority shared by Klahoose and The Land Conservancy. TLC will purchase and hold a conservation covenant to ensure that the property remains protected in perpetuity.

Sponsor Certificate : Every \$25 donated purchases and protects 12 square metres



Photo by Bernadette Merleens-McAllister

4. Sooke Hills

Much of the Sooke Hills was protected by the 1997 transfer of off-catchment Water District lands to Capital Regional District Parks. However, land still needs to be purchased to complete the Sea to Sea Green/Bluebelt vision, which will see land and marine areas protected from southern Saltspring Island to the Sooke Basin. The area will then be an urban containment boundary. This will be an estimated 10-year, \$10 million dollar effort, starting with the purchase of the Ayum Connector, a 3-acre property connecting Ayum Creek Estuary with the regional Galloping Goose Trail, near the Sooke Hills Wilderness Park.

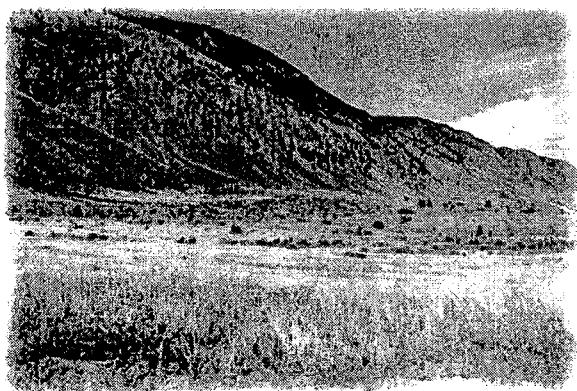


Photo by Bill Turner

Sponsor Certificate: Every \$25 donated purchases and protects 1 square metre

5. Reynolds Ranch

This purchase encompasses important, rare grasslands. The 1,000-acre ranch is located immediately south of the Empire Valley Ranch near Big Bar, on the west side of the Fraser River. Purchase of the ranch also includes grazing rights to 35,000 acres of crown land. The Cariboo-Chilcotin grassland ecosystem is one of the province's most endangered ecosystems, with less than one percent of it protected. A variety of rare species of flora and fauna live in this ecosystem, including the red-listed blue-bunch wheatgrass-junegrass and big sage-bluebunch wheatgrass communities.

Sponsor Certificate: Every \$25 donated purchases and protects 225 square metres plus 7872 square metres of leased grasslands

ADOPT AN ACRE

Funds raised by this program are designated for costs related to the actual purchase of property or ongoing expenses such as monitoring property, taking photographs for monitoring records, insurance, maintenance and property taxes if appropriate. One certificate is issued for each acre and is renewable annually. Sponsors can develop a close relationship with a TLC project and in some cases can actually visit the project they are sponsoring.

SPONSOR CERTIFICATE

You can help protect sensitive habitat in British Columbia by donating to The Land Conservancy acquisition projects which are under way. Your gift can be on behalf of a loved one or friend, your place of employment, a school's environment club, for example, or from yourself. All donations through the "Sponsor Certificate Program" go directly towards securing the valuable habitat that you stipulate. Gift recipients will receive a certificate acknowledging your contribution.

TLC MEMBERSHIP

The life-blood of The Land Conservancy is its members. To be a strong organization that can fulfill the important conservation projects under way and in the future, requires a large, province-wide membership. Please consider donating a gift membership to someone or becoming a member yourself.



I would like to "Adopt an Acre" for myself to give a gift of "Adopt an Acre"

I would like a Membership to give a Gift Membership to The Land Conservancy

I would like a Sponsor Certificate for myself to give a gift of a Sponsor Certificate

Gift Recipient's Name

Address City

Province Postal Code

Your name

Address City

Province Postal Code

Send gift certificate to me directly to recipient

Gift tag to read

For multiple gifts and/or memberships please attach a paper with the information listed.

Sponsor Certificate

South Winchelsea Island Black Creek Klahoose Sooke Hills Reynolds Ranch

Adopt An Acre (\$25 per acre)

Highlands Covenants Black Creek Klahoose Sooke Hills Reynolds Ranch

Saltspring Projects Lasqueti Island

Membership

\$35 Individual \$50 Family \$15 Senior \$15 Student \$15 Low Income

\$100 Supporter \$1,000 Patron

I have enclosed my cheque in the amount of \$

Please charge \$ to my credit card VISA Mastercard

Number Expiry Date

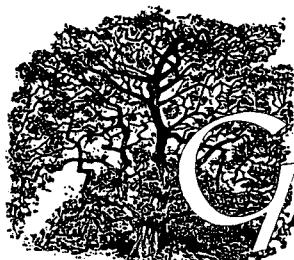
Please send form and cheque or credit card information to
The Land Conservancy of B.C., 5793 Old West Saanich Road, Victoria, B.C. V8X 3X3



The mission of the Land Conservancy of British Columbia is the protection of natural ecological communities critical to the biodiversity of life on earth. TLC also supports the protection of historical, cultural, scenic and environmentally compatible recreational values across the urban, rural and wilderness landscapes. We accomplish these goals through education, voluntary agreements, partnerships, legal tools and land acquisition.

For more information phone 250-361-7693

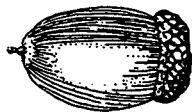
WEB SITE: www.conservancy.bc.ca



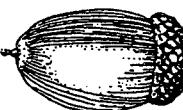
GARRY OAK LEAFLET

Newsletter of the Garry Oak Meadow Preservation Society

DECEMBER 1998, Vol. 5, No. 9



IN A NUTSHELL: NOTES FROM THE PRESIDENT



As I sit near my window enjoying the winter sun as I write, I can see grey squirrels scampering around. There has never been an article about them in *The Leaflet* that I can recall. Like Scotch broom, they provoke a sentimental reaction, especially from folks who like to feed them.

At The Field-Naturalist store one afternoon, I heard an employee try to discourage a shopper looking for squirrel food. He wasn't making much headway. We suspect grey squirrels are a big problem and some of the directors are looking for information about them. You may recall me mentioning that a PhD student had unsuccessfully tried to obtain funding from the Habitat Conservation Trust Fund to study the effects of the grey squirrel on the Garry oak ecosystem.

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It was a bumper year for acorns. Rob Hagel, the technician at the Pacific Forestry Centre, was inundated and received more acorns than he can possibly use. The refrigerator is stocked with fat acorns, which he presoaked and sorted. In November the *Times Colonist* printed a request from GOMPS for acorns and I received more than 60 calls. I answered as many as I could, but couldn't always reach the person.

I picked up quite a few bags and others were dropped off at my house. I arranged with Rob to sort them at the PFC facilities but Rob suggested I take some of the ones he had in storage, which were in much better condition. We left the ones I'd brought for Doris Rohlfs' research on filbert weavils and filbertworms.

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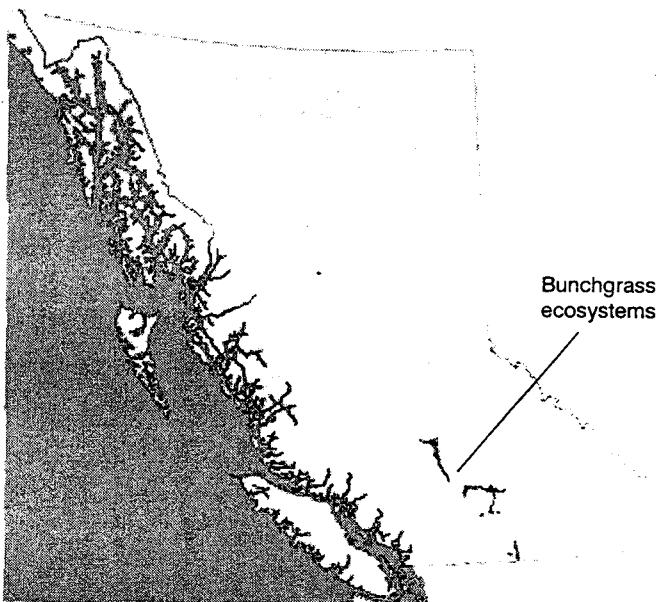
The acorns from PFC are being used by Cowichan Community Land Trust. The lead donor for the Nature Conservancy's purchase of the Elkington property in Maple Bay, as I mentioned in the October/November newsletter, is tying his/her donation to an educational program. I went to a meeting with CCLT employee Nikki Adams to

suggest various ideas. Nikki is working with a retired school teacher to devise a program for the three schools closest to the Elkington property.

□

In October I went to the **Grasslands Conservation Council** meeting in Ashcroft, B.C. I had never been there before, although I had driven the highway north several times to Kamloops. I had always enjoyed the spectacular scenery so different from the coast but I knew nothing about the local bunchgrass ecosystems which cover less than one percent of the total area of British Columbia.

According to the Ministry of Forest's brochure on the zone, it "consists mostly of narrow fingers of land centred on the major river valleys of the Okanagan, Thompson, and Fraser river basins. These include the Okanagan Valley from Summerland south to the United States border, the Thompson River Valley from Kamloops to Spences Bridge, the Nicola River Valley and the Fraser and Chilcotin river

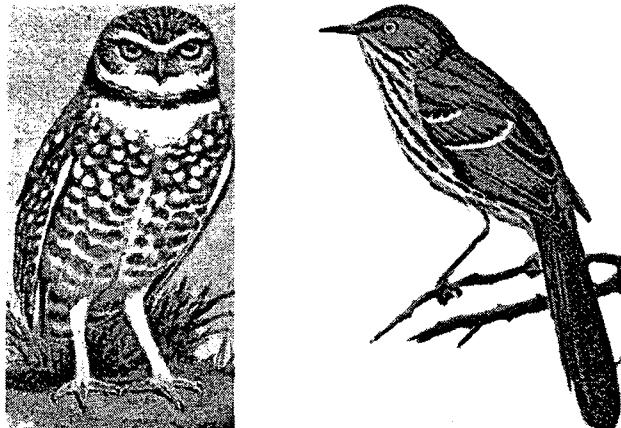


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valleys south of Riske Creek to north of Lillooet. In these locations, the zone occurs from the valley bottoms up to elevations of approximately 900 m on the valley slopes."

These grasslands are rich in flora and fauna specially adapted to the austere drought conditions which result in little tree cover and grasses being the dominant cover. Ranch managers told me the spring wildflowers are magnificent. But overgrazing and development have disturbed much of the native flora. Very little of it is protected.

The province has acquired the 11,000 hectare **Empire Valley Ranch** and **The Land Conservancy** is negotiating to buy **Reynolds Ranch**, immediately south of it.



Burrowing owl (extirpated and reintroduced, though its success is in doubt) and the endangered Sage Thrasher, two species associated with the bunchgrass ecosystems. Illustrations by Arthur Singer from *A Guide to Field Identification: Birds of America*

On the field trip to a ranch and in the conference room, I listened to cattlemen, biologists and Ministry of Forest employees talk about similar concerns we share on the coast with our endangered Garry oak grasslands: the need for prescribed burns, the dilemma of accommodating development and at the same time preserving fragile habitat, the lack of money for protection and the mammoth problem of invasive weeds, in this case knapweed and cheatgrass. Overgrazing also causes an imbalance among native plants, with prickly-pear cactus, pasture sage, low pussytoes and needle-and-thread grass becoming dominant.

The Grassland Conservation Council formed in 1966 to bring together organizations and individuals interested in protecting grassland biodiversity. For more information contact the council c/o **Canadian Parks and Wilderness Society, 611-207 West Hastings Street, Vancouver, B.C. V6B 1H7** or phone 604-685-7445.



The **Helping the Land Heal Conference** held at the Conference Centre in Victoria from November 5-8 was a

sellout. Four hundred people registered and more were on a waiting list. At the opening of the conference, Victoria MLA **Steve Orcherton** welcomed conference participants and said that we lived in the endangered Garry oak ecosystem. I told someone later that this was the first time I had heard an elected provincial politician publicly acknowledge that.

One session I attended was on **Restoration in Settled Areas: Opportunities and Constraints**. I was particularly curious about **Deborah Curran's** (Eco-Research Chair of Environmental Law and Policy, UVic) presentation: **Local Governments and Ecological Restoration: Do We Have the Tools, and Do We Know How to Use Them?** I was hoping she might have suggestions that GOMPS could use. It was clear by the end of her talk that any change will have to be driven by us, the local citizens, and that our municipal governments and politicians will not enact stewardship tools given to them in the *Municipal Act* without community pressure.

At the **Restoration in Settled Areas: Projects and Practice session**, PhD candidate **Brenda Beckwith** described her proposed prescribed burn in the Garry oak woodlands at Government House. Although she has the scientific backing of local ecologists and the expertise of the Ministry of Forests in line, she has not yet been able to obtain permission from the Victoria Fire Department.

In the poster sessions, GOMPS member **Eric Redekop** manned a display on the City-Wide Broom Bash. He had large photos, maps showing locations and handed out a brochure with the program schedule, leaders, target plants, benefits of bashing broom and community partners listed.

For the field trips I took a busman's holiday: **Dr. Richard Hebda** led about a dozen people to restoration sites of Garry oak ecosystems at Government House, UVic, Mount Tolmie and Christmas Hill.

At **Government House**, much of the broom and ivy removal has been completed, although efforts to keep it at bay are ongoing. **Fran Spencer**, a student in the environmental restoration program at UVic, told us GIS mapping of the Garry oak woodlands will soon begin and will show specific plant populations. **Brenda Beckwith** took us to the proposed burn plots.

UVic has a remnant Garry oak meadow at the corner of Gordon Head and Cedar Hill Cross roads. Restoration students **Ross Archibald** and **Kathy Wiley** are trying to work on this heavily degraded area and to establish a greenway on campus.

As most of you know, **Eric Redekop** has been removing Scotch broom, Himalayan blackberry and other invasive plants from **Mount Tolmie** for a few years now. He showed us his current work site, including where native shrubs were planted, and invited us to pull broom which we

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Santa Claus
North Pole, Canada, HOHOHO

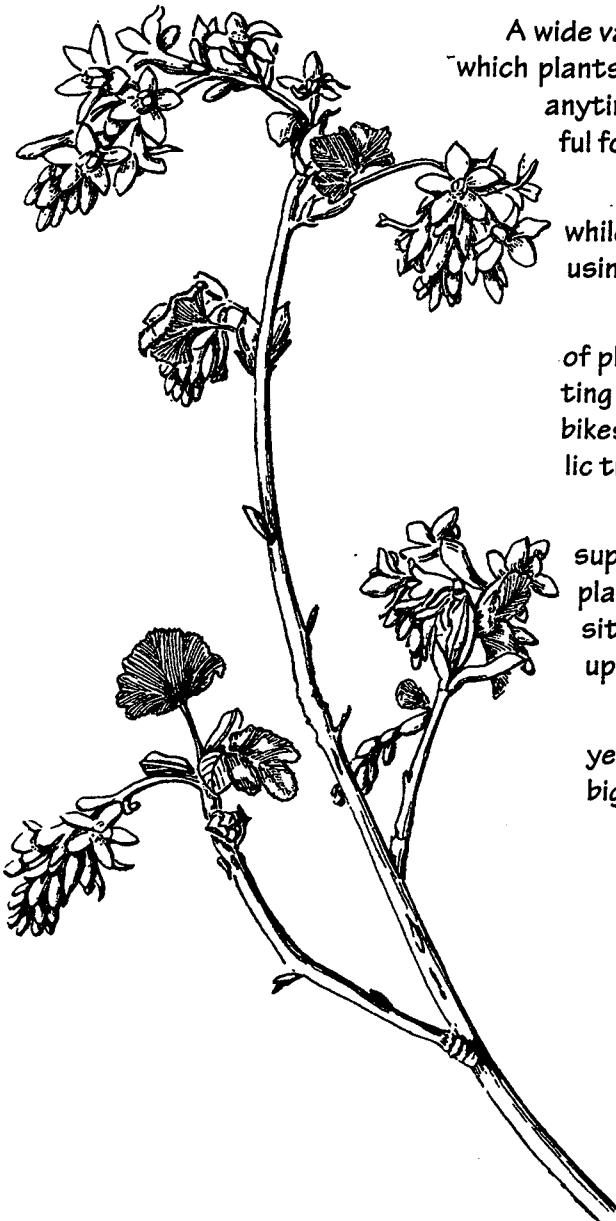
Re: gifts for broom bashers

Dear Santa Claus,

As the festive season approaches, I thought you might like to know which items will probably appear on the gift wish lists you will receive from our broom bashers here in Victoria. Of course you will have most of these items in stock already, but you may want to lay in a few extra, just in case.

Gloves are always popular, whether for the summer or winter basher, and whether they are working with broom, blackberry, or ivy, but everyone still has their personal preference. Other useful clothing items include long underwear, long sleeve shirts, wool work socks, rubber boots, a dark-coloured knit cap, and a rain-coat. You may want to double-check sizes for the youngsters on your list, as they grow up so quickly.

Comfort accessories may include a water bottle or thermos, knee pads, or unscented sun block, while related interest items might include binoculars, film, natural history guidebooks, a subscription to the Leaflet, or the latest edition of the Old Farmer's Almanac. Volunteers could use a compass to indicate direction and estimate the time of day.



A wide variety of tools may appear on volunteer wish lists, depending on which plants they are working with and when. Hand held pruners are useful anytime for blackberry and some ivy, and long-handled loppers are useful for cutting mature broom in the summertime.

Some large ivy branches may need a keyhole or swede saw, while blackberry root balls are most easily separated from the soil using a garden fork in the wintertime.

Some volunteers use a loop of nylon rope to cinch up bundles of plant debris for transport to disposal staging areas, or for getting a grip on broom stems in tight corners. Volunteers who ride their bikes could use a bungee cord to lash tools, while those who use public transit could use a bus pass or tickets.

Some volunteers take on additional duties of organizing and supervising meadow rehabilitation work, and may ask for rolls of pink plastic flagging tape to mark trails, work zones, hazards, and sensitive vegetation (please remember that green tape doesn't show up as well in natural areas).

Please let me know if you get any unusual requests this year, like that one you had a few years ago for a helicopter and some big nets.

Best wishes for the season,

Eric Redekop
Program Coordinator
Operation Clean Sweep

Red-flowering currant illustration by Mareen Kruckeberg from the book *Gardening with Native Plants of the Pacific Northwest*

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did, to the accompaniment of Holly Arntzen's singing.

The last field trip was to Christmas Hill. **Willie MacGillivray, Swan Lake/Christmas Hill** site manager for the past 18 years, took us to several areas, including one that has infilled with trees. We discussed the need to take out native shrubs/trees in order to keep Garry oaks healthy.

It occurred to me that Christmas Hill could certainly benefit from GIS mapping. As Richard said, Willie is one of the "elders" and all the information Willie is carrying around in his brain needs to be put on paper. During our walk around I realized what a task it must be to have the responsibility of both maintaining the Sanctuary acreage as well as Christmas Hill.

One highlight of both the conference and the field trip was singer Holly Arntzen, who conveyed beautifully our concerns for the earth. Whenever Holly became inspired, she burst into song and it was a wonderful addition to our day.

Of the participants at the conference, at least 14 were involved with Garry oak ecosystems at some level, though most chose to go on other field trips.

We had an informal meeting at lunch time on Saturday to discuss forming a Garry oak group with Dennis Martinez, of Glendale, Oregon. He is the Director of Indigenous Peoples' Restoration Network and a member of the Society for Ecological Restoration. Dennis was quiet keen to meet people interested in Garry oak issues. We told him that there was going to be an international conference on Garry oak ecosystems next May (more on this in the next issue of *The Leaflet*).

Although I didn't go to the meeting, people interested in starting up a local chapter of the Society for Ecological Restoration met after the conference. I don't know the results yet.

ONGOING

PUBLIC RELATIONS

GOMPS DISPLAYS: Phone 386-4792 for possible locations

FUND-RAISING COMMITTEE

As our main fund-raiser, GOMPS has for sale full colour posters of a Garry oak and a meadow of camas/buttercups under a bright spring sky. We also have wildflower placemats, wildflower posters and the *Garry Oak Meadow Colloquium Proceedings* for sale. Call Tom Gillespie at 361-1694.

PRESERVATION/RESTORATION COMMITTEE

SEED/SEEDLING EXCHANGE. Interested members contact Katie Stewart at 386-4792.

OPERATION CLEAN SWEEP (broom removal). Call Eric Redekop at 595-7270 for information.

RESEARCH COMMITTEE

PUBLIC CONSERVATION ASSISTANCE FUND GARRY OAK INVENTORY PROJECT. Project coordinator is Paul Gareau, 592-9089.

NEWSLETTER

If you have any contributions — photos, art work, articles, letters of agreement or disagreement or anything else you'd like to contribute, contact Katie Stewart at 386-4792 or mail to address below.

GARRY OAK MEADOW PRESERVATION SOCIETY
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Director	Michael Meagher	727-7675

MEMBERSHIPS AND DONATIONS

NAME _____

ADDRESS _____

MEMBERSHIP DUES:

Donation

Individual \$15 Family \$20

Please send more information about:

Youth and Associate \$6 (no newsletter)

Local sources for Garry oak meadow plants

Gift memberships, send receipt to:

Garry Oak Inventory Project

Operation Clean Sweep (broom removal)

Growing, planting Garry oaks